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ABSTRACT

Two approaches to private sector participation in employment and training programs for economically disadvantaged out-of-school youth (16-21 years old) are discussed in this report. The two approaches are: (1) subsidized work experience in the private sector, which tries to foster good work habits leading to employment; and (2) occupational accessing, which attempts to link youth with jobs in rapidly growing industries or established industries experiencing skills shortages. Part I deals with two model subsidized work experience programs: Project Opportunity (in rural Wisconsin) and Open Road/New Jobs (Los Angeles, California). Part II discusses two model occupational accessing programs: the Machine Trades Training Program for Youth (Cleveland, Ohio) and Career Pathways in Energy Conservation (Boston, Massachusetts). The report describes all four models in theory and practice; analyzes termination data, participant follow-up results, and program impact; discusses cost-effectiveness; and presents employer analyses. Appendixes contain supplementary tables, information on controlling for selection bias, and a comparison of cost analysis methods. (CMG)

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# SUBSIDIZED WORK EXPERIENCE IN THE PRIVATE SECTOR AND OCCUPATIONAL ACCESSING: STRATEGIES FOR EMPLOYING DISADVANTAGED YOUTH

A Project of
The Private Sector Initiatives Demonstration
of Public/Private Ventures

Final Report
January 1983

UD023297

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This report was prepared under a contract with the Office of Employment and Training Programs of the Employment and Training Administration, U.S. Department of Labor (contract number 99-1-1352-33-6). Organizations undertaking such projects under government sponsorship are encouraged to state their findings and express their judgments freely. Therefore, points of view stated herein do not necessarily represent the position of the Department of Labor.

There are eight degrees in the duty of charity. The most meritorious of all is to assist the reduced fellowman by teaching him a trade or by putting him in the way of business so that he may earn an honest livelihood.

Maimonides

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# EXECUTIVE SUMMARY

The Youth Employment Demonstration Projects Act of 1977 concentrated a large sum of Federal research and program monies on assisting disadvantaged youth to enter the world of work. In addition to formula-funded programs administered by CETA prime sponsors, the legislation committed substantial resources to testing new approaches to alleviating youth unemployment. Early in 1978, Public/Private Ventures (P/PV) was selected to conduct a demonstration project that would test various strategies for the involvement of the private sector in the employment and training of disadvantaged youth. This report is part of a series that summarizes P/PV's findings. In this volume, two specific program models are described and assessed:

- Subsidized Work Experience in the Private Sector
- Occupational Accessing.

## I. SUBSIDIZED WORK EXPERIENCE IN THE PRIVATE SECTOR

Traditionally, federal regulations have limited work experience programs to placing youth in public and non-public agency settings. Supporters of this restriction claim that subsidizing private sector work experience would result in worker displacement and give unfair competitive advantages to certain profit-making firms. Opponents have claimed that the prohibition against private sector work experience deprives youth of important opportunities and contacts for future employment. Unfortunately, scant empirical evidence exists to support or refute these contentions. In order to gain more insight into the possible efficacy of subsidized work experience in the private sector, the Department of Labor commissioned P/PV to fund and research a pair of programs, one in rural Wisconsin and the other in the San Fernando Valley section of Los Angeles. To diminish possible objections from organized labor, only small firms with non-unionized work forces were involved. The Department of Labor was especially interested in learning how employers would respond to these programs, which featured a powerful mix of incentives for them to provide youth with up to six months of work experience. The incentives included:

- full subsidy of participants' salaries at the minimum wage;
- virtual elimination of red tape since the subsidy was paid directly to the participants by the programs;
- no obligation on an employer's part to hire a youth after training was completed.

The San Fernando Valley program, Open Road/New Jobs, was operated under the aegis of the Citizen's Policy Center, an organization begun in California during 1975 to address the problems of youth in the areas of employment, education and citizen participation. Focusing on out-of-school, Hispanic youths, the program functioned from November 1979 through March 1981 and placed 111 youths in work experience settings. Project Opportunity, the Wisconsin program, was conducted by ADVOCAP, Inc., a non-profit Community Action Agency, founded in 1965. The project opened its doors in May 1979. After placing 125 youths in fully subsidized work experiences, Project Opportunity switched to partial subsidization in March of 1981. This partial subsidization called for employers to reimburse the program for 50% of the participants' wages earned during the latter half of the six month placement period. Fifty-nine youths were served under this revised model, which operated through March, 1982.

## Results

The major policy questions concerning the use of wage subsidies, addressed in this research, are:

- will employers respond to them?
- are labor market prospects of the youth improved?

The answer to the first question appears to be yes. Program staff were able to place youth quickly (within two to four weeks) in well designed work experience settings. Data from almost two hundred participating employers show that they were especially pleased with the programs' handling of paperwork, with the wage subsidy, and with the opportunity to teach young people their trade. Employer participation did not diminish when firms were required to pay half of the youths' wages during the second three months of the placement. The wage subsidy was positively viewed by employers as reducing training costs and risks.

Anecdotal evidence indicates that the subsidy (along with the program staff's close involvement) "bought tolerance" in the form of employers going to extra lengths in solving problems such as the tardiness and absenteeism that often occur with disadvantaged youth. Almost half the employers believed that the program youths performed below the level of their typical entry employee; however, this did not appear to decrease employers' inclination to participate in employment and training programs. Forty percent reported that they were more willing to become involved while about 15 percent reported the opposite. Finally, before participation in these programs, most firms had never hired youths from employment and training programs. This indicates that these program models tap a new and viable source of private sector training: small businesses.

But, do the programs improve the subsequent earnings of youth? Available data are negative, but limited to a single program, Project Opportunity Phase I, which appears to have been generally less effective than either Open Road/New Jobs or Phase II of Project Opportunity, in which employers contributed a portion of the trainee stipends. On other indicators, specifically costs and status at termination, the programs fared better. Job placement rates at termination were higher than those of comparable youth efforts. While costs were high in the start-up year of Project Opportunity, Phase II cost figures approached those of national OJT and formula-funded work experience programs. Nonetheless, in the one program where impact was measured, the results were not positive.

In summary, the viability of the subsidy mechanism and the response of small businesses were encouraging. However, more broadly-based research is required to determine whether and how this mechanism can contribute to the long term employability of disadvantaged youth.

## II. OCCUPATIONAL ACCESSING

This strategy sought to link skills training for disadvantaged youth with high demand occupations in local labor markets. Theoretically, it was posited that youth could make quantum leaps into new careers if the program supplied trained graduates in either of the following areas:

- in occupations characterized by severe skills shortages; or,
- in nascent industries that promised job opportunity but had yet to develop rigorous employee induction criteria and procedures.

Two programs were initiated by P/PV in late 1979 to test whether planned occupational strategies that address local employment needs would work for youth. The Machine Trades Training Program for Youth (MTTPY) operated in Cleveland, Ohio under the auspices of Cuyahoga Community College. The program was designed to train disadvantaged youths for the machine trades, a field that was experiencing acute problems in attracting a sufficient number of skilled workers. In a world center for the machine tool industry, Cleveland employers were concerned about the diminishing availability of skilled labor and an aging workforce. MTTPY, which offered training, work experience, OJT), sought to train 126 youths during its first year of operation.

In October, 1979, Career Pathways in Energy Conservation (CPEC) was begun. The program was undertaken because in Boston, and indeed across the country, the energy conservation field was expanding quickly. Further, many believed that imminent legislation would require regulated utilities to offer their customers energy audits, thus creating a sudden demand for skilled workers. Local studies forecast a high demand for trained workers in the energy field.

The program, under the management of the Technical Development Corporation, sought to train and place 100 out-of-school, disadvantaged youths in entry level positions with energy related employers. Youths were to be equally recruited from Boston and the "Border Region" between New Hampshire and Massachusetts. Like MTTPY, CPEC developed an extensive training sequence that embodied cognitive and applied classroom training, work experience, OJT and job placement assistance.

## Results

What was learned from CPEC makes a cautionary tale. The program was a failure, plain and simple. Three factors may have contributed to CPEC's low rate in placing youth in jobs (22%) and exorbitant costs ($42,118 per job placement including youth stipend costs). First, the program design was faulty on a number of counts. Too many interdependent actors and agencies performed diverse functions. The curriculum, which led off with an eight week classroom experience, may have discouraged youth and contributed to a high drop-out rate. Training staff had trouble dealing with the particular needs of the trainee population. Close ties to employers were not maintained. The program's focus was upon an emerging and volatile industry where occupational projections are inherently difficult. Recession coupled with the defeat of the National Energy Policy and Conservation Act vastly reduced the demand for workers in the energy field. Finally, the Department of Labor instructed the program to avoid training in areas in which private sector firms were explicitly involved. This made it difficult for program planners to develop a specialized curriculum.

In the case of MTTPY, the results were more promising. Despite the sudden downturn in an economy that left numerous veteran machinists out of work, the termination and cost data were impressive. MTTPY positively terminated 58 percent (n=63) of its participants with 41 percent (n=45) securing unsubsidized jobs. The rates were clearly superior to the mean for national skills training programs for youth. MTTPY's cost per positive termination was less than most other comparable programs. Because the Department of Labor opted not to support longitudinal research on these programs, the post-program impact of MTTPY is not known. However, its operational feasibility appears strong and rests upon several solid programming principles:

- in-depth diagnosis and screening of youth;
- continuous private sector involvement;
- staffing of the program with retired machinists, who had far-flung informal job networks;
- concreteness and output orientation of the curriculum.

Several policy implications flow from these findings. First, it appears that carefully designed skills training programs can work for youth, although the absence of longitudinal data precludes definite answers on long range employability effects. Second, MTTPY's occupational area, an established industry, was somewhat less vulnerable to economic fluctuation compared with CPEC's emergent energy field. Finally, MTTPY's apparent success hinged upon a well thought-out and well delivered service sequence.

# CHAPTER I: INTRODUCTION

This report is one of a series issued by Public/Private Ventures as part of a multi-site demonstration project begun in 1978 with the support of the U.S. Department of Labor (DOL). The project has developed and assessed a number of approaches to private sector participation in employment and training programs for 16 to 21 year old, economically disadvantaged, out-of-school youth. Overwhelmingly these are poor, minority, high school drop-outs with scant work experience and few skills. Such young persons experience severe difficulty in securing jobs; and, as they grow older, typically do not catch up with the remainder of society in terms of earnings. While the teenage population is shrinking, it is not expected that the employment problems of disadvantaged youth will readily disappear since the minority share of the youth population is increasing along with urban high school drop-out rates (cf. Congressional Budget Office, 1979).

Widespread agreement about the chronic needs of this group is tempered by equally widespread uncertainty about what to do. This report addresses two strategies:

- subsidized work experience in the private sector which tries to foster good work habits leading to employment; and,
- occupational accessing which strives to link youth with jobs in rapidly growing industries or established ones experiencing skills shortages.

## Subsidized Work Experience in the Private Sector

Current CETA regulations (Section 676. 25-4 (a) (1)) explicitly forbid work experience programs in the private sector. The roots of this prohibition trace back twenty years to the Manpower Development and Training Act of 1962. Resistance was led by organized labor who feared that 100% wage subsidization would result in the displacement of union workers. As one employment and training veteran put it: "The labor movement believed that subsidized work experience would amount to replacing parents with their children." Congress has traditionally echoed this view and also has shown concern that subsidized work experience programs might give unfair competitive advantage to certain profit-making firms over others. Since their inception under the Economic Opportunity Act of 1964, work experience programs have with few exceptions been limited to public and non-profit employers.

However, the strategy of direct monetary incentives to private sector employers for hiring disadvantaged youth possesses a lingering appeal and periodically comes to the fore. For example, the National Commission for Employment Policy (NCEP) in its 1979 Report to the President and Congress asserted:

> In particular, the current prohibition against private sector work experience under CETA is depriving youth of opportunities to learn more readily transferable skills, to be exposed to a wider variety of work settings, and to acquire valuable contacts and references for future employment. In addition, such experiences could help to break down the resistance of many employers to hiring youth from disadvantaged minority communities. Accordingly the Commission recommends that:
>
>> Short-term subsidized work experience in the private sector should be permitted under CETA with safeguards that employers do not misuse the program and that the youth are provided with a carefully structured and supervised learning experience or training opportunity (p. 21).

Currently, most legislative proposals for revising the nation's employment and training system call for limited, subsidized work experience in the private sector. However, there is scant empirical evidence to support or refute the efficacy of this approach. With special permission from the Department of Labor, P/PV designed, funded, and researched two demonstration programs that featured a powerful mix of employer incentives for providing youth with up to six months of work experience in private sector firms. In these two programs, youth salaries were fully subsidized at the minimum wage; red tape was virtually eliminated; small employers with non-unionized work forces were targeted for participation; and employers were not required to make any commitment to hire youth after the subsidized training period.

One of the programs operated in rural Wisconsin, the other in the San Fernando Valley area of Los Angeles. In terms of scale, each was relatively small, maintaining a six-person staff and placing 100 to 120 CETA eligible out-of-school youth in work experience positions annually. Yearly costs not counting research expenditures were about $325,000 per program. Youth enrollment began in Wisconsin during May of 1979 with San Fernando following five months later. After operating for slightly more than one year the California program closed its doors, unable to convert to a local funding base. The Wisconsin program on the other hand altered its model to test a reduced subsidy level and, supported mostly by national DOL demonstration dollars, provided services through early 1982. This report evaluates both versions of the Wisconsin model as well as the California one.

## Occupational Accessing

Skills training programs, both classroom and on-the-job, have received continued and substantial government support since the early 1960's. The general conclusion about this activity is heartening: skills training has a significant and positive impact on the earnings of enrollees (NCEP, op cit.). However, little research has been performed to determine how applicable skills training is to a younger population. Some theorize that youth may not be ready for intensive specialized training until they "settled down." Others view the youth labor pool as a viable resource to tap when skill shortages or emerging occupations create high demands for workers. In order to learn more about training youth for selected skilled occupations, P/PV funded and researched two programs, one in Boston and one in Cleveland.

In Boston, market analyses conducted in 1978 forecasted energy conservation as a rapidly expanding and lucrative field with job opportunities for young workers, especially as "para-engineers." In this capacity, youth would learn to inspect heating and production equipment and formulate steps to increase energy efficiency (a labor intensive alternative to capital investment for office buildings, hospitals, and factories). A local non-profit firm with experience in energy conservation was chosen to plan and conduct a model program to train and place youth in energy-related jobs.

In Cleveland, an aging workforce populated the machinist trade and there were insufficient channels for inducting new workers. Shortage of skilled machinists caused concern among many local groups. In particular, small shops were seen as having difficulty in retaining qualified workers. It was thought that small establishments often hired and trained machinists only to have them move on to larger corporations with superior wage structures and benefit packages. Under P/PV's aegis, a machine trades training program was developed to train and place out-of-school disadvantaged youth.

Both the Boston and Cleveland programs featured a progression of training phases: orientation, classroom instruction, work experience, and CETA/OJT contracts. Both sought to train 100 to 150 youth per annum at a cost of about $700,000 per program. Both enrolled their first youth in October 1979 and ran for about one year.

## Origins of the Study

Early in 1978, the newly formed Office of Youth Programs, within the U.S. Department of Labor, and P/PV began to lay the groundwork for this study. The central goal was to test and evaluate innovative methods of career induction for economically disadvantaged youth. During the planning stage, ideas ranged from job restructuring to job creation via economic development. Program implementation was delayed as DOL and P/PV worked toward consensus on specific strategies to be tested. Changes occurred even after programs had been formally selected and several local program operators "found this lengthy process politically embarrassing particularly when they had advertised the programs and recruited employers and Advisory Boards" (P/PV, 1980 p.51). In spite of planning problems and delays, all four original candidate programs were eventually funded and by the end of 1979 were servicing youth (cf. P/PV's earlier report, New Career Pathways, May 1980 for a detailed description of start-up).

Concomitant with proposal review and contract negotiations, P/PV refined the research design which emphasized five basic questions:

- How do the programs operate?
- Does program involvement reinforce or reduce private sector employers' willingness to hire youth and to accept government-funded trainees?
- What other effects do the programs have upon employers?
- Do the programs enhance the employability and earnings of youth?
- Are the programs cost-effective?

These five questions were used as guideposts in organizing the subsequent chapters of this report.

## Organization and Scope of the Report

As noted, the programs cluster into two distinct interventions: Subsidized Work Experience in the Private Sector and Occupational Accessing. For clarity, this report has been divided in two parts. Part I addresses the Subsidized Work Experience Programs, and Part II the Occupational Accessing Programs. To the degree possible, the same topic sequence was followed in each part.

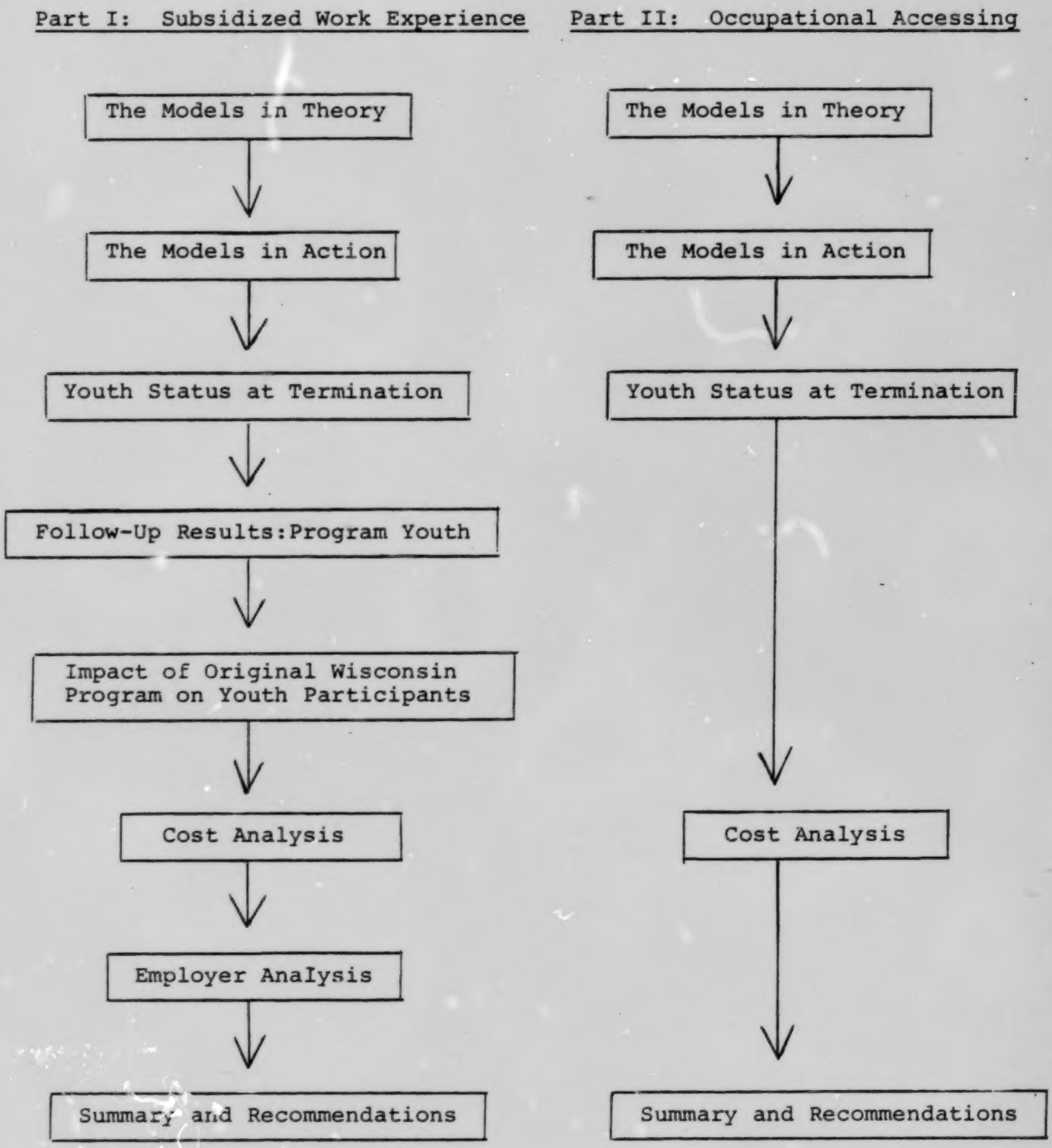
As Figure I depicts, we begin both parts with a description of the program models. First, the models are described in the ideal, "how they were meant to work." Next, a qualitative evaluation describes how each program really worked in its day-to-day operations and discusses the demographic make-up of the participants. This qualitative description serves several ends. A grasp of the processes and problems adds interpretive insight to the numerical findings; helps isolate particularly noteworthy features; and provides useful hints should similar programs be replicated in new settings. Information for the qualitative analysis was collected by P/PV evaluators' observing the programs, interviewing staff and other key persons, and reviewing written program documents.

After describing each program, a brief analysis of the participating youths' status at the time when they completed the program is presented. Data for this analysis were collected on standardized forms designed by P/PV and used by all of the programs. The type of termination that the youth experience is one important outcome of employment and training programs, and analysis of termination data provides useful information on such factors as:

- the effectivenes of programs in providing immediate employment for youth upon termination; and,
- the degree of wastage of resources as reflected by non-positive terminations (cf. Sawhney et al, 1978).

Unfortunately, as Figure I indicates, we do not analyze the post-program status of youth in the Occupational Accessing strategy. The Department of Labor's Office of Youth Programs, due to fiscal constraints and other factors, specified that follow-up of participants not be undertaken in these programs. Admittedly the absence of such longitudinal data stymies an assessment of the impact that the Boston and Cleveland projects might have had on the post-program labor market status of participants. A related situation characterized the California subsidized work experience program. In this instance, the Department of Labor instructed P/PV to conduct an eight-month post-program follow-up with participants, but not with comparison subjects. Our analysis of post-program impact was therefore restricted to Project Opportunity, the subsidized work experience program in rural Wisconsin. Given these constraints, the reader is strongly cautioned to avoid judgments regarding the longer-term impacts of the programs reported in this study, with the exception of the original Project Opportunity program.

Figure I: Sequence of Report Sections


Part I: Subsidized Work Experience
The Models in Theory
The Models in Action
Youth Status at Termination
Follow-Up Results:Program Youth
Impact of Original Wisconsin Program on Youth Participants
Cost Analysis
Employer Analysis
Summary and Recommendations
Part II: Occupational Accessing
The Models in Theory
The Models in Action
Youth Status at Termination
Cost Analysis
Summary and Recommendations

Our employer analysis is also restricted to the Subsidized Work Experience strategy. Substantial baseline information was solicited from several hundred firms which accepted youth into traineeships. In addition, a number of in-depth interviews were conducted with several employers at each program site. Finally, follow-up phone surveys were performed with employers several months after they had accepted a youth into training. These data permit us to describe what types of employers participated and assess how the programs influenced employer attitudes and hiring practices.

In order to gauge each program's cost-effectiveness, we computed several indicators such as cost per participant and cost per unsubsidized job at termination. A straightforward comparison of these unit costs with those available from similar programs provides insight into how the study programs measure up to established program efforts. However, the lack of post-program information on the labor market status of youth precluded analyses of a more sophisticated nature, such as benefit-cost analysis.

Finally, each part of our study concludes with a summary of key findings useful to policy makers and planners.

# PART I

## SUBSIDIZED WORK EXPERIENCE IN THE PRIVATE SECTOR

With special permission from the U.S. Department of Labor, two demonstration programs were begun in 1979:

- Project Opportunity, which was operated by Wisconsin-based ADVOCAP, Inc., a non-profit Community Action Agency, founded in 1965 subsequent to the Economic Opportunity Act; and,
- Open Road/New Jobs, which was operated under the Citizen's Policy Center, an organization begun in California during 1975 to address youth problems in the fields of employment, education, and citizen participation.

Both organizations drew upon prior endeavors in designing their demonstration models. The general concept for the Open Road/New Jobs program evolved from their 1975 demonstration which was jointly supported by state CETA discretionary funds and a federal grant from the Community Services Administration. This earlier demonstration placed youth in both public and private sector entry level positions and offered minimum wage stipends for a six month period. In 1977, the DOL Office of Youth Programs identified this project as "an exemplary youth employment project" and during 1978 plans were made to convert it to a purely private sector work experience effort.

The Project Opportunity model examined here developed from a program that ADVOCAP had been conducting since the mid-1970's. Private funding from the Ralston-Purina Company had supported a small summer jobs program which placed youth in short-term private sector positions and offered them modest training stipends. Shortly after the passage of national youth employment legislation in 1977, ADVOCAP requested state discretionary monies to expand the project to a full-blown, year-round one. Based largely on local prime sponsor objections, it was determined that experimentation was not permissible because it violated regulations restricting work experience subsidies to public and non-profit firms. ADVOCAP countered by successfully seeking national demonstration funds.

ADVOCAP's Project Opportunity inducted its first youth in May, 1979 and operated through February 1981. At that time, staff revised the model by requiring employers to pay a portion of the training stipends. This revised version of the program was supported by Department of Labor demonstration funds from March 1981 through March 1982. Open Road/New Jobs enrolled its first youth during November 1979 and ran for sixteen months through February 1981. Our research covers the entire operating period for each program. In this part of the report, we discuss the design of each program model (Chapter II) and describe each program during its actual operation (Chapter III). Special attention is given to problem areas that were not anticipated by the program architects. Chapter IV analyzes participants' status at termination. In addition to examining the types of termination experienced by almost 300 youths in these programs, results from multivariate analyses are recounted in an attempt to identify the association of selected youth characteristics with termination status and earnings. As noted earlier, eight-month post-termination interviews were conducted with participants in both Open Road/New Jobs and Project Opportunity. Chapter V analyzes data from these interviews to investigate whether selected youth and program characteristics predict participants' success on the job market. This analysis is followed in Chapter VI by an impact study which measures employment and earnings differences between Project Opportunity youth and a comparison group of youth who were interviewed during similar time periods. The cost-effectiveness of these programs is discussed in Chapter VII by means of a comparison with existing training programs. Chapter VIII focuses on employers who trained youth. A profile of participating businesses is presented along with employers' perceptions of the programs, the youth, and the impacts of program participation upon their hiring practices. Findings are summarized and recommendations are presented in Chapter IX, the final chapter of this part of the report.

# CHAPTER II: THE MODELS IN THEORY

In many ways, the Project Opportunity and Open Road/New Jobs programs closely resembled one another. Each featured a forceful cluster of incentives designed to induce small employers to enlist economically disadvantaged, out-of-school youth as trainees. However, the programs differed in several respects. This chapter describes the programs' designs in order to provide the reader with a picture of the main components of Project Opportunity and Open Road/New Jobs.

## Project Opportunity

Youth arrived at Project Opportunity's doorstep having been referred from the local Job Service (such youth had already been CETA certified), or from community agencies, or by other youth. One of three job developers explained the program and, if needed, directed the candidate to the Job Service for formal screening and certification. Certified youth returned to meet with the job developer in several one-to-one sessions where the job developer explored career interests, informally assessed work aptitudes and attitudes, and investigated the need for support services. Youths who manifested severe emotional, behavioral, and/or physical disorders were screened out. Such youths were referred for special treatment and invited back after their problems had been resolved. The typical youth, however, was able to work successfully with Project Opportunity's job developer in defining occupational preferences. The job developer then began to identify businesses in the youth's interest area for a suitable placement. During the initial meeting with a prospective employer, Project Opportunity job developers accented the theme of low risk, emphasizing to the employer the youth's special interest in a particular occupation as well as the following program attractions:

- 100 percent of youth's salary (minimum wage) paid by the program directly to the youth;
- full insurance liability carried by the program;
- bonding, if necessary, provided by the program;
- the chance to interview and choose the youth;
- ongoing contact with the youth by the job developer; and
- no required commitment to hire the youth after the six month training period.

Red tape and risk were minimal. The employer, in addition to providing "a sound training experience," was required only to transmit a weekly time sheet verifying the number of hours worked by the youth so that the program could pay the youth. Conditions of "a sound training experience" included each employer's designing and following a formal training plan which mapped a progression of job tasks and designated a supervisor who would serve as a mentor for the youth. Employers had the option to formalize the pact in a three-way agreement co-signed by the youth, the employer, and the job developer.

After placement, the job developer maintained close contact with both the youth and the employer in order to gauge progress and intervene quickly should problems arise. As youth eased into their jobs, they were urged to complete a General Educational Development (GED) program if they did not have a high school diploma. If the need for specialized support services became apparent, the job developer would function as a counselor for the youth. Toward the midpoint of the six month work experience, the job developer turned attention to the youth's post-training employment. Customarily the employer would be asked if the youth might be taken on as a regular employee. If the chances for this were not good, the job developer began to ferret out alternative employment or, in some cases, to line up additional training or education for the youth to pursue upon termination from the program.

After operating for over a year and a half, Project Opportunity converted to its "Phase II" program model in March of 1981. This model was virtually a replica of the one just described except for a prominent variation in the stipend. Instead of providing participants' an "up to six months" 100 percent wage subsidy equivalent to the minimum wage, the following modification was adopted:

> [The program pays] 100% of the minimum wage for the first three months, after which the program contributes 50% of the minimum wage and fringe benefits and the employer contributes 50% of the minimum wage for the remaining three months of training (ADVOCAP Proposal, 1980, p. 2).

Fiscally, this represented a move toward program self-sufficiency because the public funds required for wage subsidies would be reduced from 100 percent to 75 percent if each youth stayed the full six months. Above and beyond fiscal advantages, the program planners believed that the employer "buyin" would increase both employer interest in the training and the rate of direct hiring at the end of the training period. Procedurally, the program continued to pay youth their full minimum wage amount but after month three participating employers were invoiced for 50 percent of monthly wages and fringe benefits.

## Open Road/New Jobs

Open Road/New Jobs parallels Project Opportunity with three notable exceptions. First, instead of continous intake and placement, youth were enrolled in two waves or cycles per year, occurring six months apart. Each wave was to include 60 youth. Youth recruitment began a month or so before a cycle's beginning. Second, Open Road/New Jobs featured a formal pre-employment training component. Each cycle commenced with a two-week long workshop. New participants were divided into subgroups of twenty and each subgroup was expected to complete an identical training sequence. A formal curriculum accented job readiness training, values clarification, and career education. Training was primarily conducted by the two-person administrative staff with time built-in for youth to become acquainted with their job developers. It was up to the three job developers to find each of the 20 youth in their own caseload a work experience placement by the end of the workshop period. The third difference from Project Opportunity was that Open Road/New Jobs placements were to be drawn from a pre-existing job bank of employers who had agreed to train program youth.

In terms of scale, each program had a staff of six including a director, three job developers, an assistant who handled research duties, and a secretary.

## CHAPTER III: The Models in Action

This section examines the programs' clientele, services, and operations. It asks questions such as: What happens in the programs? What types of youth enroll? How do youth progress through the programs? What are the critical events that influence youths and employers? What program features are most replicable and, conversely, most problematic? Answers can help in understanding "how" and "how well" the programs performed and what components were especially noteworthy.

Information used in this chapter comes from two sources: quantitative data drawn from a uniform data collection system and qualitative information from on-site observations and interviews with staff, employers, and youth. The chapter is organized according to sequential program phases with a special section devoted to youth characteristics.

### Recruiting and Intake

Open Road/New Jobs and Project Opportunity exemplify how an assortment of factors can impede recruitment. Their experiences point up not only the need for more careful planning but for structural improvements in the CETA screening and certification system.

In terms of planning deficiencies, Open Road/New Jobs promptly ran into difficulties. Plans called for two six-month cycles, each serving sixty youth. This resulted in an immediate overload as staff, working with virtually no lead time, were faced with the task of developing a bank of over sixty job placements, recruiting and screening sixty youth, and ironing out the program's fine points -- within a two month period during November and December, 1979. It is hardly surprising that, in spite of effective working relationships with referral sources, Open Road/New Jobs enrolled only thirty-nine (39) youth for its first cycle, a 33% shortfall. By Cycle II this problem was resolved and the program surpassed its recruitment goal. However, staff workloads continued to ebb and flow radically because, coincident with the Spring 1980 Cycle II recruiting period, staff were seeking to place Cycle I graduates in unsubsidized jobs. In hindsight, the cycle approach was less than optimal and Open Road/New Jobs staff agreed that Project Opportunity's continuous enrollment plan was superior.

Project Opportunity also experienced recruiting difficulties, but these appeared to be more exogenous and related to local economic cycles. Project Opportunity's geographic service area encompassed Winnebago and Fond du Lac counties including the City of Fond du Lac located at the confluence of the Fox River and Lake Winnebago. The city, a major center for canning peas and sweet corn, is the gateway to the Fox River Valley (known to most as the Valley of the Jolly Green Giant). During summer harvest, seasonal jobs abound and temporary workers in 1979 were earning over $6.00 an hour plus overtime in the canneries. Spring and summer unemployment rates were estimated at between 3% and 4% by the local Chamber of Commerce. Project Opportunity opened its doors in May 1979 and recruiting instantly lagged. The new program, with its offer of minimum wage youth stipends, had a difficult time competing with the more lucrative, albeit temporary, jobs in the canneries and on the farms. Intake during the summer fell 50% below performance projections. However, in the fall, recruitment improved and after October 1979, monthly projections were met. Even during subsequent summers, the program was able to achieve recruiting target levels largely due to a better developed referral system.

Start-up overloads and seasonal fluctuations can be rectified in the planning process. However, a major problem lay close to the heart of the CETA system in its screening component. The U.S. Department of Labor has stated that:

> Identifying client needs is an essential component of good programs. Intake and assessment are activities where this is accomplished. For a program to be successful it must ... be able to identify those clients who can best use its services (Employment and Training Administration, 1978, p.1).

Open Road/New Jobs and Project Opportunity both contracted with local Job Service offices to screen, certify, and refer youth. Both programs noted problems with the client screening process. Interestingly, the problems represent obverse sides of the same coin. Open Road/New Jobs staff, while maintaining a close, cooperative, and quick-to-act relationship with the Job Service, were less than pleased with the caliber of screening. In fact, Open Road/New Jobs job developers tagged poor screening on the part of the Job Service as the primary operational problem. Staff claimed that disproportionate numbers of problematic youth, especially drug abusers, slipped through the screening net only to fail abruptly when faced with program attendance requirements. Conversely, in the Wisconsin program, the Job Service came under criticism from Project Opportunity staff for taking so much time in screening youth (three to four weeks) that many youth got fed up and withdrew.

A conundrum is apparent. Hasty screening may not identify individual problems and can result in a negative, deadend program experience. Rigorous and lengthy assessment frustrates youths' desires to get jobs quickly; some youths, with possibly sound potential, drop out of the process. A final problem suggested by Project Opportunity staff (and by other P/PV demonstration program personnel) has to do with the financial structure of central intake and screening units such as the Job Service. Commonly these units have several client programs who pay them a fixed fee for youth certification, assessment, and referral. It has been argued that established programs with proven longevity are dealt better qualified youth in higher numbers than demonstration projects which by design often have shorter life expectancies. This could result in demonstrations being assigned candidates who are less job ready.

In raw numbers, Open Road exceeded their fifteen month (August 1979 to November 1980) target of 100 youths by 20. Project Opportunity fell a dozen youths short of its first year performance objective, enlisting 108 youths, however this seems attributable to planning problems encountered in starting-up the program at the beginning of the Summer of 1979.

## Participant Characteristics

Participants in the original Project Opportunity demonstration (PO I) and the revised version (PO II) embodied certain demographic characteristics of their service area. Project Opportunity's service area was largely rural with manufacturing concentrated in four middle-sized cities: Fond du Lac, Oshkosh, Neenah, and Menasha. Practically all residents are white with the 1977 median family income on the order of $10,200. Unemployment during this time hovered between 6 and 7 percent. Although almost nine-tenths of the land area is devoted to farming, better than a third of the jobs were in manufacturing with many (44%) of these being union-ized (Area Economic Authority, 1977).

Youth in both phases of (Project Opportunity were overwhelmingly white (see Table 1). They scored exceptionally well in reading ability compared to other CETA program populations in spite of the fact that over half were high school dropouts. In terms of age, Project Opportunity youth tended toward the upper end of the 16 to 21 year old eligibility interval, especially the Phase II participants who on the average were 19.1 years old - a full year older than Open Road/New Jobs youths and almost half a year older than their Phase I colleagues. Although 64 percent of the Project Opportunity youths lived "on their own" (not with their families), comparatively few (12%) had dependents. All Project Opportunity youths were out of school at the time of intake, but a sizeable portion (40%) had graduated from high school with an additional 6% reporting some college or other post-high school educational experience. Seven of ten

## Table 1

## Distribution of Participant Characteristics at Intake
## PO I and II, OR

| Characteristics | PO I |  | PO II |  | OR |  |
|---|---|---|---|---|---|---|
|  | n | % | n | % | n | % |
|  | (n=125) |  | (n=59) |  | (n=111) |  |
| 1. **Age** |  |  |  |  |  |  |
| 16 and under | 4 | 3% | 1 | 2% | 22 | 20% |
| 17 | 23 | 18% | 7 | 12% | 21 | 19% |
| 18 | 38 | 30% | 10 | 17% | 23 | 21% |
| 19 | 23 | 18% | 16 | 27% | 21 | 19% |
| 20 | 26 | 21% | 15 | 25% | 13 | 12% |
| 21 | 11 | 9% | 10 | 17% | 11 | 10% |
| Mean | 18.3 |  | 19.1 |  | 18.1 |  |
| S.D. | 1.3 |  | 1.3 |  | 1.6 |  |
| 2. **Sex** |  |  |  |  |  |  |
| Male | 51 | 41% | 39 | 66% | 79 | 71% |
| Female | 74 | 59% | 20 | 34% | 32 | 29% |
| 3. **Ethnic Group** |  |  |  |  |  |  |
| White | 119 | 95% | 57 | 97% | 31 | 28% |
| Black | 0 | 0% | 0 | 0% | 14 | 13% |
| Hispanic | 3 | 2% | 0 | 0% | 65 | 59% |
| Other | 3 | 2% | 2 | 3% | 0 | 0% |
| 4. **Family Status** |  |  |  |  |  |  |
| Head of Household-Parent | 13 | 10% | 7 | 12% | 10 | 9% |
| Member of Family | 45 | 36% | 26 | 44% | 75 | 68% |
| Family of One | 67 | 54% | 26 | 44% | 26 | 23% |

Note: Due to rounding percents do not in all cases sum to 100.

## Table 1 (cont.)

## Distribution of Participant Characteristics Intake
## PO I and II, OR

| Characteristics | PO I n | PO I % | PO II n | PO II % | OR n | OR % |
|---|---|---|---|---|---|---|
| | (n=125) | | (n=59) | | (n=111) | |
| 5. Number of Dependents | | | | | | |
| Zero | 111 | 89% | 51 | 86% | 84 | 76% |
| 1 | 9 | 7% | 3 | 5% | 23 | 21% |
| More than 1 | 5 | 4% | 5 | 9% | 4 | 4% |
| Mean | .16 | | .23 | | .32 | |
| S.D. | .50 | | 1.64 | | .70 | |
| 6. Education Grade Completed | | | | | | |
| Less than 9 | 4 | 3% | 1 | 2% | 3 | 3% |
| 9 | 15 | 12% | 6 | 10% | 18 | 16% |
| 10 | 23 | 18% | 15 | 25% | 21 | 19% |
| 11 | 27 | 22% | 8 | 14% | 44 | 40% |
| High School/GED | 46 | 37% | 28 | 47% | 18 | 16% |
| Post-Secondary | 10 | 8% | 1 | 2% | 7 | 6% |
| 7. ABLE Reading Score (Grade Level) | | | | | | |
| 3 - 4.9 | 6 | 6% | 4 | 7% | 20 | 19% |
| 5 - 6.9 | 4 | 4% | 2 | 4% | 17 | 16% |
| 7 - 8.9 | 29 | 27% | 12 | 22% | 35 | 33% |
| 9 | 70 | 64% | 37 | 67% | 34 | 32% |
| Mean | 8.42 | | 8.41 | | 7.09 | |
| S.D. | 1.20 | | 1.45 | | 2.04 | |
| | n=109 | | n=55 | | n=106 | |

## Table I (cont.)

## Distribution of Participant Characteristics at Intake
## PO I and II, OR

| Characteristics | PO I n | PO I % | PO II n | PO II % | OR n | OR % |
|---|---|---|---|---|---|---|
| | (n=125) | | (n=59) | | (n=111) | |
| 8. Ever Enrolled in Training Program | | | | | | |
| Yes | 56 | 45% | 21 | 36% | 36 | 32% |
| No | 69 | 55% | 38 | 64% | 75 | 68% |
| 9. Ever Held Full or Part-time | | | | | | |
| Yes | 83 | 66% | 43 | 73% | 67 | 60% |
| No | 42 | 34% | 16 | 27% | 44 | 40% |
| 10. Worked During 12 Months Prior to Intake* | | | | | | |
| Yes | 57 | 69% | Not available | | 51 | 77% |
| No | 26 | 31% | Not available | | 15 | 23% |
| 11. Hourly Wage of Last Job Ever Held* | | | | | | |
| Mean | $ 3.26 | | $ 3.55 | | $ 3.55 | |
| S.D. | $ 1.12 | | $ 1.08 | | $ 1.34 | |
| 12. Hourly Wage of Last Job Within 12 Months* | | | | | | |
| Mean | $ 3.48 | | Not available | | $ 3.51 | |
| S.D. | $ 1.07 | | Not available | | $ 1.14 | |
| 13. Hours Worked per Week on Last Job Ever Held* | | | | | | |
| Mean | 36.7 | | 35.6 | | 36.0 | |
| S.D. | 9.9 | | 8.0 | | 7.4 | |
| 14. Hours Worked per Week on Last Job Within 12* Months | | | | | | |
| Mean | 38.1 | | Not available | | 36.0 | |
| S.D. | 10.1 | | Not available | | 7.5 | |

*Data pertains to only youth who held jobs.

Project Opportunity youths had held a job prior to program entry. For the most part pre-program jobs were full-time and paid about $3.50 per hour.

The data reveal a systematic difference between Phase I and II enrollees in Project Opportunity. Phase II youth were older, mostly male, held more previous jobs for substantially higher hourly wages, and had attained more high school degrees. In brief, Phase II youth appear more job ready, an observation shared by program staff who felt that Phase II youth were of a "higher caliber." This change in clientele did not appear to stem from any programmatic alterations, but rather from worsening economic conditions. Project Opportunity staff note that local unemployment rates had jumped to 13 percent by early 1981 when Phase II operations began. Increased numbers of youths were out of work, CETA eligible, and willing to accept the minimum wage. Staff hypothesize that, as a result, a "bumping process" occurred wherein the Job Service referred more mature candidates to Project Opportunity, most of whom were males who had pre-vious employment experience.

Open Road/New Jobs youth did not typify the population of the San Fernando Valley. "The Valley," an unincorporated area within the Los Angeles city limits, supports a population of about 1,650,000 (75% white) within its 235 square miles. If the Valley were a city, it would be the sixth largest in the United States. Whereas 17 percent of the families in Fond du Lac County, Wisconsin, earned $15,000 or more in 1977, 60 percent of the Valley families achieved this level with the median family income being about $18,000. In the Valley, over 70 percent of male household heads and 55 percent of female heads had some college education (San Fernando Valley Regional Chamber of Commerce and Visitors Bureau, 1978). However, the Valley included a number of low income pockets which become more frequent as one moves inland from the Pacific Ocean.

Approximately one-half of the jobs in the Valley were in the service sector with a quarter in manufacturing. Unemployment in 1977-78 ran about 7.5 percent. Although the Valley is predominantly white, the Hispanic population (11.6% in 1977) is growing and Open Road/New Jobs targeted its services toward economically disadvantaged Hispanic youths. As Table 1 indicates about 60 percent of Open Road/New Jobs youth were Hispanic. In addition, there are other marked differences between the Open Road/New Jobs and Project Opportunity populations. Open Road/New Jobs youth were younger and mostly male (71%). Most (68%) still lived with their families but a quarter claimed dependents of their own. Compared to Project Opportunity, Open Road/New Jobs youth had less schooling (78% drop-outs vs. 54%) and had more difficulty reading (25% below fifth grade level vs.

15%). Work history differences were not as sharp. Relatively similar proportions of Open Road/New Jobs and Project Opportunity Phase I youths had held jobs at some time in their lives but more Open Road/New Jobs youths held jobs during the year preceeding program entry. However, compared to Project Opportunity Phase II youths, Open Road/New Jobs participants were less frequently employed before program entry (73% vs. 61%). In both programs, pre-program jobs tended to be full-time and paid about $3.50 per hour.

Ceteris paribus, it would appear that the typical Project Opportunity youth, white, older, with more education and better reading skills would have an edge over the typical Open Road/New Jobs youth in securing a job.

## Pre-Placement Training and Support Services

Project Opportunity is a rapid service model. Unless serious problems of a physical or psycho-social nature were manifest, youth were accepted into the program and placement in a work experience setting began promptly. No pre-employment training sequence was offered by Project Opportunity. In retrospect, staff felt that some basic pre-employment training would have been beneficial. Open Road/ New Jobs, on the other hand, did incorporate formal pre-placement services via its two week long, four hour per day job readiness workshop. Youths were paid minimum wage for workshop attendance. The workshops, conducted by the two administrative staff members, used an assortment of activities to prepare participants for the world of work. Activities included personal skills assessment, occupational interest testing, role play simulations of job interviews, career planning and goal setting techniques, and civics lectures. Guest speakers representing a variety of occupations addressed the participants who were divided into classes of approximately 20. The training culminated with each youth composing an Employment Development Plan, which specified career goals, as well as skills and work habits needed to perform well during the work experience traineeship. This document was subsequently used to monitor and discuss youths' performances during the course of their work experience. During the workshops, the Open Road staff also had an opportunity to identify particularly troubled youth and refer them for specialized help.

However, the Open Road/New Jobs cyclical intake system strained agency resources, especially the work load of job developers. Recall that after Cycle I, job developers were charged with lining up traineeships for their caseload of almost 20 new enrollees while attempting to find unsubsidized jobs for youths who were completing their stint of work experience. Project Opportunity, on the other hand, with its continuous intake model offered no systematic pre-employment training. A compromise approach might benefit both program models. Such a design might feature scaled-down two to three day workshops held every other week or so. This would diminish the overload evident in Open Road/New Jobs and provide increased screening and training capacity for Project Opportunity.

Neither Open Road/New Jobs nor Project Opportunity formally offered specialized support services. However, job developers maintained close contact with youths and employers during the placement period and built close relationships with both. This, plus the bent of both staff toward a social work model which responded to personal as well as career problems, resulted in job developers engaging in substantial amounts of counseling and referral. Even family counseling was not uncommon. In Project Opportunity, staff estimate that on the average each youth received 8.5 hours of counseling services and the estimates are higher in Open Road/New Jobs.

Attaining General Educational Development (GED) certification was emphasized for high school drop-outs. Frequently the job developer would elicit a promise from youths that they would pursue a GED during their training period. This pledge was also used to convince employers of a youth's motivation. In actuality, the pledge was honored more in the breach than the observance. Across both programs 27 youth enrolled in GED programs, but only five Project Opportunity participants and no Open Road/New Jobs youths actually completed their GED's.

## Securing the Training Placement

In both Project Opportunity and Open Road/New Jobs, developing subsidized work experience placements with private sector firms was critical, and the job developer was the key agent in this process. A touchstone for youths and employers, the job developer was called upon to provide numerous services.

In dealing with youths, job developers in both programs evidenced similar styles. As noted, all engaged in informal counseling. Further, none of the job developers utilized standardized tests of interest or ability. Preferring to rely on their own interviewing savvy, early meetings with a youth focused on explaining the programs and assessing whether the youth really wanted to work or not. Past job problems, reasons for current unemployment, and special work interests were discussed and if the youth was accepted into the program (and practically all were), job developers would begin to seek a training placement.

Open Road/New Jobs attempted to use a job bank which required lining up a sufficient number of placements to cover all new participants, in advance of intake. However, only about one in four youths were placed in job bank positions. The rest, for a variety of reasons, required personalized placement. For example, certain job orders were cancelled or were already filled by the time a youth was ready for placement. A number of positions went unused because inadequate public transportation made it impossible for a youth to get to and from the business. Individual characteristics sometimes scuttled jobs especially for those youths whose English-speaking ability was weak and specialized placements under Spanish-speaking supervisors were necessary. In retrospect the job bank technique proved less than efficient, and gave way to an individualized job development approach.

As noted, due to enrolling sizeable numbers of youths in separate waves, Open Road job placement was very pressurized and a continuous intake system would have been preferable.

Different approaches characterized the employer solicitation process. One job developer said he simply "showed up" at a place of business believing that this made it more difficult to be turned away. If told that the owner was busy, this job developer would just wait it out. Of seventy-odd employers visited, each granted this job developer an audience. Other job developers contacted prospective employers by letter, followed by a telephone call, followed by a meeting. Still other relied solely on the telephone to make initial contact. Each initial contact, whether phone, letter, or drop-in, was preceded by information gathering to identify small businesses that were both within a youth's espoused occupational interest area and were geographically accessible. The Yellow Pages and the "grapevine" were extensively used but a number of placements were made in businesses that were identified when a job developer happened to see a firm's sign or delivery truck.

Persuasive techniques frequently embodied a businesslike approach wherein the job developer accented the "no risk" aspect (salary, insurance liability, and even bonding would be paid for by Project Opportunity and Open Road/New Jobs). Fiscal incentives as well as lack of paperwork, the youth's genuine interest in a particular line of work, and the absence of any obligation to hire after the training were attractive features for employers. A second persuasive approach, which several job developers used, appealed to community pride and personal mission. This approach highlighted the fact that the youth were disadvantaged and needed a helping hand if they were to attain solid positions within the local community. Both the "business" and "social service" techniques seemed effective. However, employer interviews suggest that the particular persuasive technique may be less influential than personal qualities of the job developers, such as belief in the program and good communication skills.

The job developer's initial employer interview was a key event. It not only gave the employer a chance to evaluate the program but afforded the program personnel a chance to evaluate the employer. Open Road/New Jobs staff related that one out of ten businesses were rejected by the program for reasons such as unsanitary or haphazard working conditions, inefficient management, and insufficient work. If the employer had done previous training, job developers would check with the appropriate agency and in several cases, where it was learned that past training fell below standard, negotiations were terminated.

On the average, of every ten firms that were contacted, four agreed to accept a work experience trainee. Next, a three-way meeting was held with the employer, the job developer, and the youth. This meeting was ordinarily held at the business site where the mechanics of the program, such as the payment system, were reviewed and mutual expectations were refined. About one in fifteen employers, according to job developers, opted to reject a particular youth and ask for another. In most cases, a standard, three-party agreement was used to formalize the placement; the agreement detailed facets such as direct supervision by a designated member of the firm, youth attendance standards, reporting requirements, and the reimbursement system. Often, during this three-way meeting, but certainly during the early weeks of the placement, an explicit training plan was constructed. The plan set forth the progressive job tasks that the youth would learn and the skills that would be developed. This plan became the basis for monitoring trainee progress. Job developers, during periodic visits to the business site, regularly checked to see if the youth was advancing in the job skills progression.

In both programs, close attention was paid to each youth during the early weeks of placement. Because some had never held jobs, work problems were apt to arise during the first several weeks. For example, some participants didn't know to call in sick and a few even thought working three days each week was acceptable. The most common employer complaints were lateness and absenteeism, and job developers would quickly attempt to work with the youth to correct early-on difficulties.

After the first month, job developers contacted employers and youths monthly, usually by visiting the work site. Employers practically all felt that this interest on the part of the job developer was a very positive factor. It gave them the chance to discuss a youth's progress and reinforced the employer's key role in the program.

The maximum time permitted for the work experience traineeship was six months. Although the flexibility of a shorter placement existed, most were planned to run the full six month period. About midway during the six month period, job developers began investigating the prospects of the youth's being hired in an unsubsidized position when the placement period was over. In a few instances, when money was the issue, job developers negotiated a formal OJT contract under which the youth remained with the employer for up to six more months with 50% of the youth's wages being paid by prime sponsor dollars. In other cases, where the chances were slim for permanent placement (usually because of sagging business activity), other local job opportunities were sought.

The next chapters addresses the youth's transition to unsubsidized employment at termination while Chapter IX provides several suggested program improvements. By way of summarizing the programs' operations, with the exception of problems related to the screening process and the strain created by the Open Road/New Jobs cyclical intake system, the programs appeared to operate smoothly and efficiently. Youth were generally placed within two to four weeks in a well designed training experience with interested employers. While the presence of a skilled program administrator was imperative to each program's smooth operation and the incentives to employers facilitated business involvement, the programs' keystone was the job developer who delivered essential and multiple services to both youths and employers.

# CHAPTER IV: TERMINATION ANALYSIS
## PROJECT OPPORTUNITY AND OPEN ROAD/NEW JOBS

This chapter studies an important immediate outcome of program participation: youth status at program termination. It has been pointed out that analysis of youth status at termination provides useful information on the effectiveness of the programs in achieving immediate employment for youth and provides a means for assessing the degree of wastage of resources as reflected by nonpositive terminations.

The chapter describes and analyzes the types of termination experienced by the 292 participants in Project Opportunity and Open Road/New Jobs. The first section sets forth the distribution of various termination types in order to gauge how well Project Opportunity and Open Road/New Jobs rates of job placement and other positive terminations approximate those in other selected youth programs. Then, the kinds of job placements are inspected as are the relationship of jobs to youth's training experiences. Next, we contrast the outcomes of youths who completed their program with those who left prematurely. Finally, in order to identify the effects of certain participant and program characteristics upon termination status, the results of several regression analyses are examined.

## Types of Termination

Reasons for termination have been classified into one of the following four major categories (cf. Sawhney et al, 1978):

- Job Placement: This category includes all youths who, within thirty days of leaving their programs, were either placed in jobs by their programs or found jobs on their own.

- Other Positive Termination: This category consists of youths who, upon leaving their programs, returned to school or entered other training programs or entered the military.

- Nonpositive Termination: This category includes youths who terminated because of disinterest, dissatisfaction, disciplinary problems, and unsatisfactory attendance as well as those not placed within thirty days of their exit from the program.

- Other Termination: This group consists of youths who withdrew from the programs because of personal problems, including health, transportation, and moving out of the area.

Table 2 presents the major reasons for termination from the three programs. Interpreting these data is not straightforward. The raw figures indicate an overall positive termination rate of 61 percent (43% + 18%) and a job placement rate of 43 percent. In isolation, the figures may be misleading. For example, Project Opportunity I was a brand new program model with a new staff. During its beginning months it had difficulty recruiting participants and its positive termination rate was low. From the midpoint of the program -- January 1980 through November 1980 -- a much higher positive termination rate was sustained. Not surprisingly, a learning curve seems to be evident wherein early snags are corrected and more positive outcomes result.

Table 2

Types of Termination: PO and OR

| | PO I | | PO II | | OR/NJ | | Total | |
|---|---|---|---|---|---|---|---|---|
| | n | % | n | % | n | % | n | % |
| Job Placement | 36 | 29% | 41 | 33% | 48 | 44% | 125 | 43% |
| Other Positive | 33 | 27% | 4 | 7% | 16 | 15% | 53 | 18% |
| Non Positive | 36 | 29% | 11 | 19% | 24 | 22% | 71 | 24% |
| Other | 14 | 11% | 8 | 13% | 21 | 19% | 43 | 15% |
| Total | 124 | | 59 | | 109 | | 292 | |

External conditions also influence outcomes. Both the Wisconsin and Los Angeles areas were hard-hit by recession during 1980. Jobs became scarce, and as has been pointed out: "Regardless of how well work experience or other employment and training programs may be administered, their overall effect will be severely limited if there are shortages of jobs in the areas where they take place" (Mangum and Walsh, 1978, p.59). Unfortunately, these data are not finely textured enough to measure the effects of a shrinking job pool upon program performance.

Several other conditions make it difficult to compare these programs to other efforts. First, there are hardly any other work experience programs that subsidize private sector employment. Second, formula-funded work experience programs deal with a range of populations and entertain different program objectives. Third, recent study has cast doubt upon the utility of termination data in evaluating program effectiveness, especially with a youth population, because termination status is simply not a sound predictor of longer term program impact (P/PV, 1982).

Clearly, definitive judgments of a policy nature should not be drawn from termination data alone. However, gross referents can be useful in determining whether or not Project Opportunity or Open Road/New Jobs appear to be roughly comparable to established programs. According to Department of Labor statistics, national YETP programs during fiscal year 1980 achieved a job placement rate of 19% - less than half that of Project Opportunity and Open Road/New Jobs' combined 43 percent rate. Adult work experience programs have nationally reported that roughly five out of ten participants are employed at program exit compared to four out of ten in Project Opportunity and Open Road/New Jobs.

A more germane comparison is with the Public vs. Private Sector Job Demonstration Project, which operated in five sites contemporaneously with Project Opportunity or Open Road/New Jobs (cf. Gilsiman and Tomey, 1980). This research reports termination data on over 2,000 economically disadvantaged youths who were placed either in small businesses or in public/nonprofit agencies at 100% subsidy for up to five months. It concluded that private sector work experience is superior to the classical public sector mode in terms of job placement. Demographically, these youth were slightly older (mean age of 18.9) than Project Opportunity or Open Road/New Jobs youth. In addition, 53% were women, 95% high school drop-outs, and 64% black.

The Public vs. Private Demonstration did not report termination data according to public vs private work experiences. It did report that of all participant youths, 40% terminated positively with 30% of these attaining unsubsidized employment. As Table 2 shows, youth from Project Opportunity and Open Road/New Jobs did substantially better on both counts. In short, the Project Opportunity and Open Road/New Jobs models compare adequately with selected related efforts.

## Types of Job Placements and Their Relation to the Training

Overwhelmingly, the jobs that the youth obtained at termination were both unsubsidized and permanent (95%). Jobs were distributed fairly equally across occupational categories although Open Road/New Jobs tended slightly toward manufacturing positions while Project Opportunity I clustered more in clerical, sales, and service fields, perhaps a reflection of the differential sex composition of the two programs.

In Open Road/New Jobs and Project Opportunity I training was consciously matched to a youth's occupational interest, in the hopes that the youth would gain a lasting foothold on a career pathway. Given that such matching distinguished these programs and represented a sizeable investment, it is important to determine the extent to which the type of job gained upon termination related to the training experience. The programs achieved a high degree of success on this dimension. Of 89 youth placed at termination by the two programs, staff report that 80 were placed in jobs directly relating to the work performed during the program.

## Completers vs. Non-completers

A useful dichotomy in evaluating programs is to contrast youth who left the program prematurely with those who completed training. All things being equal, we would expect completers, given their lengthier training and access to programs' jobs placement services, to outperform non-completers. The data in Table 3 support this hypothesis, but also indicate that less than 50% of the youth completed either program.

Table 3

Activity Status at Termination:
Completers vs. Noncompleters PO I and OR*

| | PO I | | OR | | Combined | |
|---|---|---|---|---|---|---|
| | Completers | Noncompleters | Completers | Noncompleters | Completers | Noncompleters |
| Percent in Jobs | 47% | 23% | 82% | 17% | 63% | 20% |
| Percent in School | 9% | 4% | 4% | 9% | 7% | 6% |
| Percent in Training | 25% | 11% | 2% | 8% | 14% | 10% |
| Percent in Military | 6% | 4% | 0% | 3% | 3% | 3% |
| Total Percent Positive | 87% | 42% | 88% | 37% | 87% | 39% |
| n | 53 | 71 | 45 | 64 | 98 | 135 |

*Note: Data not available for PO II.

In Project Opportunity and Open Road/New Jobs, almost 90% of completers terminated positively, a rate more than double that of non-completers. Completers in Open Road/New Jobs were more than five times as likely to hold a job at termination than non-completers; in Project Opportunity the differential was not as great, but completers still gained

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twice as many jobs as non-completers. Interestingly, non-completers in Open Road/New Jobs were more likely to enter school, training, and the military while the converse held true in Project Opportunity.

Because program completion almost guaranteed some form of positive result at termination, we examined what characteristics affect the likelihood of program completion. Table 4 presents selected characteristics of completers vs. non-completers in Project Opportunity I and Open Road/New Jobs. The fact that non-completers in Project Opportunity had significantly lower pre-program wages and pre-program reading levels suggests that the more able participants remained in the program. A similar pattern did not appear in Open Road/New Jobs as none of the background characteristics significantly affected completion.

We further explored the effects of participant characteristics upon length of stay in the program by using multiple regression analysis. Our model specified that hours of program participation depend on the following pre-program characteristics: age, sex, ethnicity, educational level, reading ability, and whether or not the youth held a job within twelve months prior to intake. Table 5 contains our results. In Open Road/New Jobs, only Hispanic ethnicity had a statistically positive effect on time spent in the program. For the Project Opportunity program, our univariate results persist as youth with higher reading ability and high school degrees stayed longer in Project Opportunity. These results suggest that Project Opportunity should have perhaps paid more attention to identifying the obstacles that the less competent youth encountered and to formulating ways to retain them in the training.

## Effects of Hours of Program Participation

In order to examine the effects of length of time in the program, we again used probit analysis. Table 6 presents our results. For the Project Opportunity I program, hours of program participation and high school diploma both approach statistical significance and positively affect job status at termination. For Open Road/New Jobs, hours of program participation strongly predict gaining a job at termination but having a high school diploma does not have a significant effect. In both Project Opportunity and Open Road/New Jobs, neither sex nor age nor ethnicity nor reading ability nor holding a pre-program job significantly improved participant chances of obtaining a job upon termination. For both programs it appears that reading ability influences final outcome by its effects on hours of participation.

In our multivariate models we also divided hours of program participation into four intervals representing months of stay in the program. For Project Opportunity, the longer

# Table 4

## Characteristics of Completers vs Noncompleters: PO-I and OR

| | PO I | | OR | |
|---|---|---|---|---|
| | Completers | Non-Completers | Completers | Non-Completers |
| Percent male | 43% | 39% | 70% | 72% |
| Average age | 18.69 | 18.56 | 18.30 | 18.02 |
| Average reading level | 8.8 | 8.1* | 7.3 | 6.8 |
| Average pre-program wage | $ 3.66 | $ 3.04* | $ 3.27 | $ 3.85 |
| Average pre-program hours worked | 37.3 | 37.0 | 36.0 | 36.3 |
| Had pre-program job | 56% | 48% | 51% | 47% |
| Percent White | 96% | 94% | 23% | 31% |
| Percent Hispanic | | 4% | 64% | 55% |
| Had high school degree | 52% | 39% | 19% | 25% |
| Total hours in program | 873 | 324* | 790 | 304* |
| N | 54 | 71 | 47 | 64 |

NOTE: Data not available for PO-II.

*Difference in means is statistically significant at the .05 level.

## Table 5

### Ordinary Least Squares Regression Explaining Hours of Program Participation: POI and OR
(t-ratios in parentheses)

| Variable | POI | OR |
|---|---|---|
| Age At Intake | | |
| 1 = 18 or over | -2.80<br>(-.03) | 23.54<br>(.34) |
| Sex | | |
| 1 = make | 29.19<br>(.41) | -39.18<br>(-.55) |
| Ethnicity | | |
| 1 = white, 0 otherwise | 38.71<br>(.23) | - |
| 1 = black, 0 otherwise | - | 142.59<br>(1.31) |
| 1 = Hispanic, 0 otherwise | - | 149.41<br>(2.01)* |
| Education | | |
| 1 = High School Graduate | 153.80<br>(1.98)* | -10.48<br>(-.13) |
| ABLE Reading Score | 270.56<br>(2.33)* | 23.91<br>(1.46) |
| Pre-Program Job Within 12 Months of Intake | 91.50<br>(1.18) | 3.34<br>(.05) |
| 1 = yes | | |
| Constant | 187.24<br>(.98) | 229.88<br>(1.54) |
| $R^2$ | .10 | .06 |
| Mean Value of Dependent Variable | 562.8 | 491.8 |
| # of Observations | 125 | 106 |

*Indicates statistical significance at the .05 level.

## Table 6

### Probit Analysis Explaining Job at Termination: POI and OR (t-ratios in parentheses)

| Variable | POI | OR |
|---|---|---|
| Age At Intake | | |
| 1 = 18 or over | -.02 | .20 |
| | (-.05) | (.66) |
| Sex | | |
| 1 = male | -.09 | .19 |
| | (-.32) | (.59) |
| Ethnicity | | |
| 1 = white, otherwise | .32 | - |
| | (.44) | |
| 1 - Hispanic, 0 otherwise | - | -.43 |
| | | (-1.28) |
| 1 = black, 0 otherwise | - | -.69 |
| | | (-1.33) |
| Education | | |
| 1 = High School Graduate | .52 | -.30 |
| | (1.76) | (-.82) |
| ABLE Reading Score | .08 | .08 |
| | (.59) | (1.09) |
| Hours of Program Participation | .0007 | .002 |
| | (1.86) | (4.54)* |
| Pre-Program Job Within 12 Months of Intake | .37 | .43 |
| | (1.33) | (1.48) |
| Constant | -2.30 | -1.92 |
| | (-1.81) | (-2.69)* |
| Chi-Square | 13.84 | 30.05 |
| Degrees of Freedom | 7 | 8 |
| Log of Liklihood | -61.50 | -57.52 |
| Proportion Y=1 | .32 | .43 |
| Number of Observations | 109 | 106 |

*Indicates statistical significance at the .05 level.

the person stayed in the program the higher the probability of having a job at termination. The results for Open Roads/New Jobs were somewhat similar except that our results indicated that length of stay became a factor in job attainment only for participants who stayed in the program for at least three months.

In summary, we found that the job placement rates of both Project Opportunity I and Open Road/New Jobs compared favorably with the job placement rates of other Department of Labor youth training programs. We also found a marked improvement in job placement rate between Project Opportunity Phase I and Project Opportunity Phase II. In addition, the programs were successful in placing participants in jobs relating to their program experience.

Multivariate analysis suggested that hours of program participation positively affected the probability of having a job at termination for both Project Opportunity Phase I and Open Road/New Jobs. For Project Opportunity Phase I, youth with high school degrees and higher reading test scores tended to remain in the program. No such result was found for Open Road/New Jobs.

# CHAPTER V: PARTICIPANT FOLLOW-UP RESULTS

In this chapter, we focus upon data from follow-up interviews with Project Opportunity I and Open Road/New Jobs participants. Attempts were made to interview participants in each of the two programs eight months after termination. It is important to emphasize here that the results in this chapter do not include any comparison group analysis. In the absence of a comparison group, pre to post-program changes in labor market outcomes cannot be uniquely attributed to program effects. Changes in economic conditions or the natural effects of aging could be responsible for such changes over time. The results in this chapter, then, should be interpreted with caution.

## The Follow-Up Samples

An independent survey research firm was engaged to track and interview each youth eight months after program termination. Of the 125 youths who entered Project Opportunity I, interviews were successfully completed with 88, a response rate of 70%. For Open Road/New Jobs, a 60% interview completion rate was achieved as 65 of the 109 participants were interviewed. A major concern was that, due to attrition, the follow-up samples might differ from the original program populations. If systematic differences between the original and the follow-up samples exist, a variety of biases could be introduced into the analysis. To check for attrition, respondents and non-respondents were compared on over twenty background characteristics. In Project Opportunity I, a statistically significant difference between the two groups was that non-respondents were younger (18.3 as opposed to 18.8 years old at intake), and they also were significantly more likely to have held pre-program jobs (79% vs 61%). In Open Road/New Jobs, no significant differences in background characteristics were found between respondents and non-respondents. Based on these analyses, it appears that the follow-up samples are acceptably representative of the original pool of program participants.

## Post-Program Outcomes: Project Opportunity I and Open Road/New Jobs

Table 7 displays outcomes for the Project Opportunity I and Open Road/New Jobs participants at termination and eight months after termination.

As the table indicates, Open Road/New Jobs participants exhibited gains in both employment and in hourly wages. The wage increase is especially sharp with average hourly pay jumping by 50¢ per hour from time of termination to the eight-month follow-up. Project Opportunity I youth, while making substantial gains in the rate of being employed, did not experience overall wage gains and dropped in their weekly hours worked by five. Both groups retained approximately equal rates of participation in some positive activity (job, school, military, other training).

Table 7

Comparison of Selected Termination and Follow-Up Outcomes

| | PO | | OR | |
|---|---|---|---|---|
| | At Termination | 8-Month Follow-up | At Termination | 8-Month Follow-up |
| Percent with jobs | 33% | 49% | 44% | 54% |
| Mean Wages for those with jobs | $3.51 | $3.51 | $3.85 | $4.39 |
| Average hours worked per week for those with jobs | 36.2 | 31.2 | 38.2 | 37.5 |
| Percent in positive activity (i.e. school, military, etc.) | 60% | 57% | 59% | 61% |
| n | 124 | 87 | 109 | 65 |

Program Completers vs. Non-completers

Table 8 separates the Open Road/New Jobs and Project Opportunity eight-month follow-up results into program completers and non-completers.

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## Table 8

### Eight-Month Outcomes for PO and OR by Completion Status

| | PO | | OR | |
|---|---|---|---|---|
| | Completers | Non-Completers | Completers | Non-Completers |
| Percent with Jobs | 64% | 38% | 79% | 35% |
| Mean wages of those with jobs | $3.46 | $3.54 | $4.44 | $4.35 |
| Average hours per week of those with jobs | 30.0 | 32.2 | 39.1 | 36.0 |
| Percent in positive activity | 82% | 65% | 93% | 59% |
| n | 39 | 48 | 28 | 37 |

In terms of employment and positive activity, it is clear that program completers did better than non-completers in both programs at follow-up. In Open Road/New Jobs, completers also outperformed non-completers in their hourly wages and their weekly work hours. This is not the case for Project Opportunity where non-completers who did find jobs logged higher wages and more work hours. It appears that, with respect to Project Opportunity, non-completers have a more difficult time finding a job than completers, but the jobs they do find pay at least as much or more than those found by the program for completers.

### Effects of Length of Stay in Program

We used multivariate analysis to determine the effects of length of stay in the program on labor market outcomes at follow-up. In these models, hours of program participation did not have a significant effect on employment status and positive activity status for either program. The statistical results of these models are presented in Appendix A.

With respect to weekly earnings at the eight-month follow-up (cf. Table 9), hours of program participation have a significant positive effect on weekly earnings for Open Road/New Jobs youth. For Project Opportunity, being male, being white, and having a pre-program job all were significantly and positively related to higher earnings. However, in Project Opportunity the hours of participation variable was negatively and significantly related to participants post-program weekly earnings.

From these analyses, it appears that length of stay in the program did not increase a youth's chances of subsequent employment or "positive activity" in either program. For Open Road/New Jobs, however, the more time that a youth spent in the program, the higher the subsequent earnings. The negative relationship between hours of participation in the Project Opportunity program and earnings is puzzling. What appears to be happening is that youth who drop out of the program do not increase their chance of employment, but if they do find a job it will pay as much as or more than the jobs found through the program.

However, our analysis of participant follow-up results falls short of assessing the net effects of program participation. Other factors, such as local employment conditions, certainly influence job acquisition and retainment. In spite of the program's seemingly poor showing in terms of post-program youth employment and Project Opportunity's failure to increase wage gains, it is possible that compared to similar youth who were not offered training, the programs have substantial impact. This is addressed in the following chapter.

## Table 9

## Tobit Analysis of Weekly Earnings at Eight-Month Follow-Up: POI and OR

(t-ratio's in parentheses)

| Variable | POI | OR |
|---|---|---|
| Age At Intake | | |
| 1 = 18 or over | 2.81 | -5.19 |
| | (.11) | -.20 |
| Sex | | |
| 1 = male | 36.48 | -22.43 |
| | (2.07)* | (-.68) |
| Ethnicity | | |
| 1 = white, 0 otherwise | 80.26 | -44.67 |
| | (2.00)* | (-1.15) |
| 1 = Hispanic, 0 otherwise | - | 2.77 |
| | | (.08) |
| Education | | |
| 1 = High School Graduate | 31.15 | -107.99 |
| | (1.68) | (-3.45)* |
| ABLE Reading Score | 12.26 | -5.19 |
| | (1.70) | (-.20) |
| Pre-Program Job Within 12 Months of Intake | 43.93 | 38.27 |
| | (2.57)* | (1.59) |
| 1 = yes | | |
| Parent's Education | 19.17 | 11.19 |
| | (1.57) | (.79) |
| Hours of Program Participation | -.07 | .08 |
| | (-2.83)* | (2.14)* |
| Constant | -178.62 | 29.78 |
| | (-2.31)* | (.46) |
| Sigma | 56.18 | - |
| Mean Value of Dependent Variable (non-limit observations) | 110.55 | 164.62 |
| Number of Observations | 69 | 54 |
| Non-Limit Observations | 48 | 44 |

*Statistically significant at the .05 level.
Note: OR Tobit was run using method of moments rather than maximum liklihood.

# CHAPTER VI: IMPACT ANALYSIS

In this chapter we use a comparison group methodology to estimate effects of Project Opportunity I on labor market outcomes eight months after program participants had left the program. The focus is upon three outcome measures -- employment status, positive activity status (i.e., work, school, training, military), and earnings. Before presenting our findings several design factors are discussed.

## Research Design and Sample Selection

The scope of the analysis in this chapter is limited to Project Opportunity I. Because of several factors, the Department of Labor chose not to obtain comparison groups for the Open Road/New Jobs or the Project Opportunity II programs. The reader is cautioned that this restriction curtails the generalizability of our findings since results are confined to a single program operating in a singular context, rural Wisconsin. Participants in Project Opportunity I were interviewed approximately eight months after they completed the program. Timing for each of the comparison group subject's follow-up interview followed this formula:

8-month follow-up interview date = baseline interview date + 5 months (average participant length of stay) + 8 months

The participant and comparison samples were not randomly selected. Participants were referred to the Project Opportunity program from a variety of sources--the state Job Service, the school system, other youth programs, and through word of mouth. The Job Service was the principal source, referring roughly 50% of all participants. Once a youth was referred to the program, counseling sessions were used to determine if the Project Opportunity program fit the needs of the youth. At least at the start of the program, almost all youths interviewed were accepted into the program. Project Opportunity staff reported however that a few youths turned down the chance to enter Project Opportunity saying that they could get better jobs on their own.

The comparison group was put together from a variety of sources in a catch-as-catch-can manner. Youths who turned down the chance to enter Project Opportunity were asked to fill out comparison group forms. Youths at the Job Service who were being referred to other programs were asked to join the comparison group as long as they met PO's income eligibility criteria. Finally, Project Opportunity staff visited other projects run by the parent ADVOCAP agency and collected some comparison group members there. In particular, 13 youths who were in the process of enrolling in (or later entered) ADVOCAP's Supported Work program were inducted in the comparison group. Further, ten youths in the participant group and a like number in the comparison group had been in Supported Work at some time in the past.

Job counselors at the State Job Service reported that Project Opportunity was a program that served youths within the middle-range of employability. Based on counseling interviews and test scores, Job Service youths were assigned to a variety of employment programs. Youths with particular career goals in mind were referred to the State's technical school system or to OJT slots in specific occupations. Youths needing to explore career opportunities, but motivated enough to follow through in a job program were referred to Project Opportunity. Youths requiring slightly more supervision were referred to public sector work experience programs. Job service counselors report that Supported Work served a different type of clientele altogether -- youths who were ex-offenders, had drug problems, or who had next-to-nothing in terms of employability.

It is difficult to reconstruct exactly who the comparison youths were who were collected at the Job Service Offices. Job Service counselors report that during the 1979-1980 period they attempted to find appropriate services for each CETA-eligible youth who came to them. The comparison group, then, was in part made up of youths who went on to other training programs. Alternatively, some of the comparison youths solicited by the Job Service probably decided on their own against entering the program suggested to them or found jobs on their own before their aptitude test or counseling session could be set up.

Given the way in which the participant and comparison samples were chosen, it is evident that selection biases were introduced at a number of different levels. State Job Service counselors had a range of programs to which they could refer CETA-eligible, out-of-school youths, and apparently they saw Project Opportunity, as a program for youth with middle of the range employability. Once the youths were referred to Project Opportunity, program counselors interviewed them, and at least a few were selected out because of severe personal problems. Finally, several selected themselves out upon hearing more about the program because they thought they could do better on their own. Because much of the comparison group was picked from youths who were selected out of the program at one of these levels - and because the program was seen as occupying a middle ground in the range of employment services - a case could be made that the comparison group does not represent the same type of youth as the participant group, but rather represents clusters of youths who are either more job-ready or less job-ready than the participant youths.

While we do attempt in our analysis to control for selection bias between the two groups, we are not completely confident of our ability to do so. The results of our analysis in this chapter, therefore, need to be interpreted with caution.

## Participant and Comparison Group Characteristics

All participant and comparison youths had to meet CETA income eligibility criteria and had to be between the ages of 16 and 21. Statistical tests were run on twenty-five demographic, educational, and pre-program work experience characteristics to check on possible systematic differences between comparison and participant youths. Comparison youths had slightly higher values for all pre-program measures, including percentage with high school degrees, percentage with pre-program jobs, reading ability score, parents' education level, and pre-program wages. However, the only statistically significant differences were that the mean age for comparisons was 19 years as opposed to 18.6 for participants and that comparison youths were more likely to be living on their own while Project Opportunity youths tended to be family members.

We also assessed attrition differences between the two groups. In the comparison group, 85 of 125 (68%) responded to the follow-up interviews. Differences between the non-respondents and respondents in follow-up interviews were tested on twenty background characteristics and only two significant differences were found. Non-respondents had fewer dependents (hence may have been more mobile and difficult to track) and were less likely to have ever worked before. In general, these were similar patterns to those found among non-respondents from the participant group sample (see the discussion in the previous chapter). Attrition does not appear to have had any differential effects between participant and comparison samples.

## Participant/Comparison Results

Table 10 presents mean values for selected pre- and post-program characteristics of our participant and comparison samples.

As is clear in the table, the slight although not statistically significant pre-program advantages of the comparison group were carried over into the post-program period. Eight months post-program -- and over a year after the

## Table 10

### Participant vs Comparison Samples: Selected Pre- and Post-Program Variables

| | Participants | Comparisons |
|---|---|---|
| Average Age | 18.6 | 18.9* |
| % Male | 41% | 46% |
| % White | 95% | 95% |
| % High School Diploma | 45% | 49% |
| % Ever Held Pre-Program Job | 51% | 65% |
| Average ABLE Reading Score | 8.4 | 8.6 |
| Pre-Program Average Wage | $3.34 | $3.48 |
| % Post-Program Job Holders | 49% | 52% |
| Average Post-Program Weekly Earnings** | $111.43 | $124.79 |
| Average Hours Per Week on Post-Program Job** | 32.2 | 31.4 |
| Average Post-Program Hourly Wages** | $3.51 | $3.73 |

* Indicates statistical significance at the 95% level.
** Pertains only to youths holding post-program jobs at the time of the eight-month interview.

baseline data were collected -- the comparison group continued to lead the participant group in the outcome measures of hourly wages and percentage holding a job, although neither difference is pronounced enough to be statistically significant.

The results in Table 10 do not control for participant/comparison differences (e.g., age, sex, and education) that could influence labor market success. To take into account observable differences between the two groups, we used multivariate models to estimate program effects on on post-program employment status, positive activity status, and weekly earnings.

We also attempt in these models to control for selection bias between the participant and comparison samples. To deal with selection bias, we make use of a recently developed econometric procedure which attempts to control for unobservable characteristics of sample youths which may have influenced their selection into the program (Heckman, 1979; Mathematica Policy Research, 1980). Appendix B provides a more detailed discussion of this procedure.

Tables 11 and 12 present the final results of program impact on employment status, positive activity status, and weekly earnings. The lambda variables in the models reflect our attempt to control for selection bias. The quarterly variables in the models reflect our attempt to control for the fact that the comparison youths were disproportionately interviewed during the spring and summer quarters, when employment opportunities may be greater in northern Wisconsin. Individual characteristics which we also controlled for in the models include age, sex, ethnicity, education, ABLE reading score, and whether the individual had a pre-program job within 12 months of intake.

Program participation lacks a statistically significant effect on any of the outcome variables considered here. In equations predicting employment status and positive activity, the program effect is positive and insignificant. In the earnings equation, the effect is negative and insignificant. The key variables explaining employment status and positive activity status are pre-program job within 12 months intake and reading ability test score. Pre-program job within 12 months of intake is also a key predictor of subsequent earnings.

These results suggest that Project Opportunity I was not able to affect the subsequent labor market outcome of participants positively. These results need to be interpreted with some caution, given the methodological problems described earlier in this chapter regarding the selection of the comparison group. Also, it should be stressed that these outcome results pertain only to Project Opportunity I. Both Open Road/New Jobs and Project Opportunity II had much better pre- to post-program earnings gains than Project Opportunity I, and an impact analysis of these two programs could reverse the finding that participation in Project Opportunity I did not improve youths' labor market prospects.

## Table 11

## Probit Analysis of Employment Status and Positive Activity Status at Eight-Month Follow-up: POI

(t-ratios in parentheses)

| Variables | Employment Status | Positive Activity |
|---|---|---|
| Ethnicity<br>1 = White | -.29<br>(-.57) | -.43<br>(-.81) |
| Education<br>1 = High School Degree | .14<br>(.56) | .04<br>(.16) |
| Parent's Education | -.14<br>(-.79) | -.05<br>(-.29) |
| Age<br>1 = 18 or over | -.20<br>(-.59) | -.02<br>(-.05) |
| Sex<br>1 = Male | -.31<br>(-1.30) | -.41<br>(-1.69) |
| Pre-Program Job Within 12 Months of Intake | .56<br>(2.38)* | .39<br>(1.68) |
| ABLE Reading Score | .24<br>(2.09)* | .25<br>(2.27)* |
| Program Participation | -.60<br>(-1.15) | -.56<br>(-1.09) |
| Lambda | .40<br>(1.14) | .27<br>(.78) |
| Interview in 2nd Quarter | -.04<br>(-.09) | .14<br>(.31) |
| Interview in 3rd Quarter | .10<br>(.21) | .06<br>(.12) |
| Interview in 3rd Quarter | .44<br>(.97) | .29<br>(.52) |
| Constant | -1.35<br>(-.96) | -1.20<br>(-1.20) |
| Chi Square | 18.72 | 15.60 |
| Degrees of Freedon | 12 | 12 |
| Proportion Y=1 | 52 | .61 |
| Log of Likelihood | -91.71 | -89.87 |
| Number of Observation | 146 | 146 |

*Indicates statistical significance at the .05 level.

## Table 12

## Tobit Analysis of Weekly Earnings at Eight-Month Follow-Up: POI

| Variables | Coefficient | t-ratio |
|---|---|---|
| Ethnicity<br>1 = White | -59.50 | -1.87 |
| Education<br>1 = High School Degree | 3.23 | .20 |
| Parent's Education | -.48 | -.04 |
| Age<br>1 = 18 or over | 41.62 | 1.91 |
| Sex<br>1 = Male | 5.82 | .39 |
| Pre-Program Job Within 12 Months of Intake | 45.24 | 3.12* |
| ABLE Reading Score | 1.68 | .26 |
| Program Participation | -45.73 | -1.39 |
| Lambda | 26.03 | 1.21 |
| Interview in 2nd Quarter | -10.87 | -.38 |
| Interview in 3rd Quarter | -8.66 | -.30 |
| Interview in 4th Quarter | 35.86 | 1.27 |
| Constant | 63.65 | .77 |

| | |
|---|---|
| Sigma | 69.94 |
| Mean Value of Dependent Variable (non-limit observations) | 119.44 |
| Number of Observations | 146 |
| Non-Limit Observations | 102 |

*Statistically significant at the .05 level.

# CHAPTER VII: COST-EFFECTIVENESS: PROJECT OPPORTUNITY AND OPEN ROAD/NEW JOBS

Ideally, a comprehensive assessment of the cost-effectiveness of a program strategy includes a comparison of the dollar benefits to the costs through a full cost-benefit analysis or less complicated techniques such as pay-back analysis (P/PV, 1982). For the two programs inspected here such analyses are precluded because we lack adequate measures of net program impacts or benefits for youth by virtue of the absence of a comparison or control group. In Project Opportunity I, cost-benefit analyses are possible; however, such sophisticated analyses make little sense because this program failed to achieve positive impact on the labor market status or the earnings of program youth vis-a-vis the comparison group. Thus, in Project Opportunity Phase I, any comparison of costs to benefits would produce results indicating that the program is not cost effective and that youth are incapable of "paying back" the cost of the program through their increased earnings.

Nevertheless, through the more basic technique of unit cost comparison, we are able to gain insight into how the programs under study compare with other national youth programs. In this chapter, we present a series of unit cost indicators commonly used in the employment and training field in order to gauge in a rough manner how Project Opportunity and Open Road/New Jobs measure up to alternative program strategies. Cost figures for the study programs are based upon the programs' internal accounting records and hence are subject to some variation depending upon local accounting practices. Before analyzing results, methodological issues and procedures are discussed.

## Methodological Issues and Procedures

While useful evaluative information results from comparing unit costs across programs, several cautions should be mentioned. First, when dealing with new, short-term, demonstration projects, care must be taken in calculating even the simplest cost figures. As previously mentioned, learning curves lessen the accuracy of data aggregated over time. Also demonstration programs incur substantial planning and start-up expenses as well as end of demonstration (phase-out) costs. Such non-recurring costs must be culled out or pro-rated lest cost figures be unduly inflated. In addition, these programs bore certain extraordinary costs, particularly costs bound up with research, which are not part of usual program operations.

In order to correct for these problems, several operations were performed. First, each program's fiscal year 1980 expenses were analysed on a line item basis and research costs were isolated. Table 13 presents summary results.

Table 13

Research Costs as a Portion of Overall Expenses:PO I and OR

| | Total FY80 Costs | Direct Research Costs | % Research |
|---|---|---|---|
| PO I | $101,955 | $23,425 | 23% |
| OR/NJ | $144,594 | $15,730 | 11% |

Note: Costs do not include youth stipends.

The discrepancy in the percent of research dollars is striking and ties primarily to research task differences between the two programs. Project Opportunity I was not only responsible for gathering client data but was charged with the tasks of recruiting, testing, and interviewing a comparison group of youth. Open Road/ New Jobs did not have the responsibility of generating a comparison study group.

Next, a "typical operating period" technique was used to estimate program expenditures minus research costs. This technique has the advantage of eliminating spurious costs associated with project start-up and wind-down. Hence, it is especially applicable to short run demonstration projects. The technique calls for selecting a typical time period during the mid-life of a demonstration program and estimating unit costs from fiscal and participant data pertinent to this "normal" operating period. Particular care must be taken in defining the typical period, especially in programs like Open Road/New Jobs which enroll youth in cycles. In selecting the typical operating periods for these programs, spread sheets of monthly costs, monthly intakes and terminations, and monthly youths in process were analyzed (see Appendix D).

## Unit Cost Calculations and Discussion

Four unit costs commonly used in employment and training evaluations were calculated for each program.

- average cost per participant = (average typical month costs/average typical month caseload) x average length of stay
- cost per participant year = (average typical month costs/average typical month caseload) x 12 months
- cost per positive termination = average typical operating period cost/number of positive terminations during typical operating period
- cost per unsubsidized job = average typical operating period costs/number of youths attaining unsubsidized job at termination during typical operating period

Table 14 presents these four units costs for the three programs.

Table 14
Unit Costs: PO-I, PO-II, OR*

| | PO-I | PO-II** | OR |
|---|---|---|---|
| Cost Per Participant | $ 2961 (975) | $2020 (708) | $2804 (1005) |
| Cost Per Participant Year | $ 7107 (2340) | $6060 (2124) | $8208 (2940) |
| Cost Per Positive Termination | $ 7481 (2464) | $2656 (929) | $5792 (2080) |
| Cost Per Unsubsidized Job | $10331 (3403) | $3054 (1068) | $7722 (2774) |

*Numbers in parentheses are unit costs without youth stipends.
**PO II research costs were computed and netted out using the same percent (11%) as OR since the research tasks were of similar scope.

It is readily apparent that the second phase of the Project Opportunity II program is by far the least costly. Several factors probably contributed to this. First, restricting our focus to costs that include youth stipends, employers in Project Opportunity Phase II shouldered half of these stipend costs from the beginning of the fourth month until the end of the training. Since training could run up to six months, employer contributions could run as high as $1,600 per youth. In reality, the average youth remained in the program exactly four months; employer contributions therefore covered one month or about $500 per youth. Adding $500 per participant back into its unit costs puts this program in the range of the other two programs.

However, employer contributions do not explain Project Opportunity Phase II's superior performance in the areas of cost per positive termination and cost per unsubsidized job. Even when adding the $500 employer contribution to costs per positive termination and unsubsidized job costs, the program is still almost 50% less expensive than Open Road/New Jobs and 75% less expensive than its progenitor, Project Opportunity Phase I.

Two factors may have resulted in the greater cost-effectiveness of Phase II. First, the program matured. Staff not only applied skills that were honed during the original program, but a retinue of employers who could be counted on as repeat customers had developed. About half of the employers participating in the second phase had also trained youths in the earlier program. The availability of a core of employers meant that placement time and hence costs were greatly reduced relative to the Project Opportunity Phase I and Open Road/New Jobs where placements with employers had to be developed from scratch. Second, the Phase II staffing pattern was streamlined and functioned with two job developers (as opposed to three in Phase I) for most of its project life.

Open Road/New Jobs markedly outperformed Project Opportunity Phase I in cost per positive termination and cost per unsubsidized job. There is no reason to think that this program would not also have benefited by experience and continued to improve its efficiency.

In order to interpret Table 14 data in a more meaningful context, it is helpful to compare these unit costs with those from established formula-funded programs. Unfortunately, data are not available for formula-funded costs per positive termination or for attainment of an unsubsidized job. Our analysis is limited to costs per participant, per slot, and per participant year. Unit costs of this sort can be quite misleading. For example, a program having an extremely high dropout and replacement rate may end up with a very frugal cost per participant because the denominator of the calculation, total participants, swells. In such a case, a low cost per participant may well be the result of a poorly run program. Our analysis is admittedly crude and seeks only to gauge roughly whether Project Opportunity and Open Road/New Jobs are in the same general range as alternative formula-funded efforts. Table 15 presents the data.

Table 15

Unit Cost Comparison with Other Youth Programs*

| | Cost Per Participant | Cost Per Slot | Cost Per Service Year |
|---|---|---|---|
| YETPA Transition Services | 324 | 455 | 905 |
| Work Experience (Title II B,C) | 1641 | 2036 | 5311 |
| OJT (Title II B,C) | 1638 | 2182 | 6088 |
| PO-II | 2020 | 3030 | 6060 |
| PO-I/OR | 2878 | 3842 | 7685 |
| YCCIP | 2985 | ---- | 7793 |

*Figures for formula-funded youth programs were taken from Taggart, 1981, pp. 25, 138.

If we assume that unit costs for Project Opportunity Phase II are a fair rendering of costs that the models under study can attain, this form of programming (subsidized private sector work experience) certainly approximates those formula-funded strategies which are most similar: OJT and Work Experience. However, it is important to note that during their start-up year, these programs cost substantially more and closely approach the rather expensive YCCIP programs that were characterized by labor intensive work, increased staff supervision, and provision of expensive building materials.

## CHAPTER VIII: PRIVATE SECTOR INVOLVEMENT: AN EMPLOYER ANALYSIS

This chapter examines data from two hundred employers who trained youth from Project Opportunity or Open Road/New Jobs. In addition to describing the businesses, we explore such issues as:

- why did firms agree to take on a youth?
- what effects did program participation have upon employers?
- what were their views of the program and the youth?
- did the difference in subsidy level affect employer participation?
- how productive were the youths?

### Data Collection

Responses were collected from participating employers in several ways. First, each participating employer was required to fill out a brief "Business Profile" which sought information on the size, age, and type of firm as well as characteristics of the work force. Second, telephone surveys were conducted with Project Opportunity Phase I and Open Road/New Jobs employers several months after they had agreed to train a youth. The telephone survey asked employers to answer a number of questions about the youth, the program services, their reasons for participating, and possible effects that the program had upon their hiring practices. In Project Opportunity Phase II, in addition to collecting data through letter surveys, an employer conference was held where employers not only completed standardized questionnaires but were afforded the chance to discuss their views of the program with legislators, local Prime Sponsor representatives, and with P/PV staff.

Response rates were adequate. Seventy of the 94 (75%) Project Opportunity Phase I employers completed telephone surveys and 70 of 110 (64%) Open Road/New Jobs employers were successfully interviewed. Thirty-two of 41 (78%) Project Opportunity Phase II employers completed written questionnaires and 16 attended the employer conference.

### Characteristics of the Employer Sample

The participating firms in all three programs have much in common (cf. Table 16). They are small and averaged fifteen employees with Open Road/New Jobs establishments being especially small with an average work force of nine.

## Table 16

### Employer Baseline Characteristics : PO and OR

| | POI | | PO II | | OR | |
|---|---|---|---|---|---|---|
| | n=94 | | n=41 | | n=110 | |
| 1. Industry | | | | | | |
| Construction | 2 | 2% | 2 | 5% | 8 | 7% |
| Manufacturing | 9 | 10% | 7 | 17% | 19 | 17% |
| Transportation, Utilities, Communication | 2 | 2% | 1 | 2% | 1 | 1% |
| Wholesale Trades | 2 | 2% | 1 | 2% | 2 | 2% |
| Retail Trades | 29 | 31% | 10 | 24% | 14 | 13% |
| Finance, Insurance, Real Estate | 14 | 15% | 3 | 7% | 2 | 2% |
| Services | 31 | 33% | 17 | 41% | 64 | 58% |
| Other | 2 | 2% | 0 | — | 0 | — |
| 2. Business Organization Type | | | | | | |
| Sole Proprietor/Partnership | 47 | 50% | 25 | 61% | 76 | 69% |
| Corporation | 44 | 47% | 15 | 36% | 33 | 30% |
| Unknown | 3 | 3% | 1 | 2% | 1 | 1% |
| 3. Owner Manages Company | 70 | 74% | 35 | 85% | 95 | 86% |
| 4. Years in Business | Mean | 17 | 21 | | 12 | |
| | S.D. | 24 | 3 | | 11 | |
| 5. Number of Employees | Mean | 24 | 11 | | 9 | |
| | S.D. | 45 | 12 | | 11 | |
| 6. Number of Entry Level Employees | Mean | 9 | 5 | | 3 | |
| | S.D. | 17 | 8 | | 2 | |
| 7. Number of Employees Age 16-21 | Mean | 8 | 6 | | 2 | |
| | S.D. | 16 | 8 | | 2 | |
| 8. Company Has Hired from Other Empl. & Trng. Progs. | 22 | 23% | 16 | 39% | 17 | 15% |
| 9. Company Has Training Prog. for Entry Level Employees | 43 | 46% | 14 | 34% | 24 | 22% |

They are predominantly owner managed and are fairly well established, having typically been in business for ten to twenty years. In all three programs, the typical business dealt in services with retail trades and manufacturing being well represented. Table 16 (Employer Baseline Characteristics: PO and OR)

On the average, about one third of the jobs in these businesses were entry level and one third of firms' employees were between 16 and 21 years of age. However, a closer inspection indicates that younger workers did not systematically occupy the entry-level positions. Further, a large proportion of firms across both Project Opportunity and Open Road/New Jobs reported no entry level positions (40%) and no youthful employees (28%).

Finally, four out of five firms (78%), had never hired youth from employment and training programs, which indicates that the programs are indeed tapping into a new and viable source of private sector training, small business.

## Why Do Firms Get Involved...and Why Not?

As has been noted, a centerpiece of Project Opportunity and Open Road/New Jobs programs was a powerful set of incentives designed to attract employer participation. Accordingly, an important facet of our research plan was to identify those features that most effectively facilitated employer involvement. In Project Opportunity Phase I and Open Road/New Jobs, employers were asked the question: "What was the main reason you hired a youth?" The major reasons given were two: 1) the original presentation of the job developer and 2) the presence of employment geared to youth already existing in the firm. Together these represent about 60% of responses on reasons for hiring. The obvious incentive, the chance for a free employee, was of less importance, indicated by 18% of respondents in both programs. Community responsibility was also a minor motive though more a factor in Project Opportunity Phase I (20%) than in Open Road/New Jobs (10%).

To assess the efficacy of program incentives more closely, employers were asked the role which incentive program features played in their decision to accept a program youth. The responses, exhibited in Table 17, reveal some very important and interesting contrasts. The "Little Incentive" column reveals that the weakest motivators for accepting a youth had to do with working with the service agencies and with reduced burden from unemployment compensation and workmen's compensation. Examining responses by individual program reveals that the reputation of the agency was a much more important factor for Project Opportunity. No doubt

## Table 17

## Degree of Incentive Provided by Selected Program Features

| Program Feature | A Lot | | Some | | Little | |
|---|---|---|---|---|---|---|
| | OR | PO I | OR | PO I | OR | PO I |
| Reputation of Agency | 10.0 | 37.1 | 15.7 | 20.0 | 60.0 | 31.4 |
| All wages paid by program | 48.6 | 54.3 | 30.0 | 24.3 | 8.6 | 10.0 |
| Little paperwork - no red tape | 50.0 | 62.9 | 17.1 | 14.3 | 20.0 | 11.4 |
| Close relationship with trainee | 42.9 | 40.0 | 34.3 | 34.3 | 10.0 | 10.0 |
| Chance to teach trainee skills | 50.0 | 50.0 | 32.9 | 30.0 | 4.3 | 5.7 |
| Reduced burden of Unemployment Compensation | 31.4 | 37.1 | 27.1 | 15.7 | 28.6 | 34.3 |
| Reduced burden of Workmen's Compensation | 31.4 | 32.9 | 21.4 | 18.6 | 34.3 | 34.3 |
| Involvement with Program | 22.9 | 22.9 | 30.0 | 41.4 | 31.4 | 17.1 |
| Opportunity to interview and screen trainee | 22.9 | 38.6 | 41.4 | 30.0 | 22.9 | 15.7 |
| Hiring and firing control | 31.4 | 50.0 | 28.6 | 17.1 | 24.3 | 17.1 |

NOTE: Percentages do not sum to 100 due to missing responses.

this reflects the fact that ADVOCAP is well-established and well-known for its many programs in its rural and small city service area. Open Road/New Jobs was new to the San Fernando Valley and probably unknown to most employers.

While overall, most features held some appeal, three elements were particularly influential:

- the paucity of paperwork and lack of red tape;
- the wages being paid by the program;
- the opportunity to teach a trainee.

This mix of pragmatism and altruism is striking. Certainly the importance of dollars and cents considerations was expected, but it does seem contrary to the responses to the earlier question: "What was the main reason your company hired a program youth?" However, this earlier question was open-ended, and the responses do not necessarily conflict since employers will not usually hire solely for the reduced cost of labor. Savings on wages coupled with the elimination of the classical employer complaint, "too much red tape," seems to have substantial impact. The strong attraction of the opportunity to teach a youth was not expected. Recall however that job developers emphasize a one-to-one, mentor relationship with trainees. Obviously this meant much to employers and represents an important component that deserves significant attention in future youth programming efforts.

Data was not systematically gathered on refusing employers so it is difficult to isolate obstacles to employer participation. This issue was indirectly addressed when an open-ended question was asked to participating employers regarding the "biggest disincentive" to participating in the programs. Thirty percent of the Project Opportunity Phase I employers and 15% of the Open Road/New Jobs ones felt that there were no disincentives. For the employers who did identify disincentives, almost half in both programs cited that educational deficiencies and/or a lack of maturity in participants was the major impediment to accepting a youth into training. Another quarter in each program believed that participants had not been properly matched to jobs. Interestingly, the remaining employers for the most part felt that their own fears and uncertainties were the major impediments -- fear of theft and anxiety that the youth would quit the training. These findings reinforce the results of the qualitative evaluation regarding screening (cf. Ch. III) and suggest that more attention be paid by prime sponsors, the Job Service, and the programs in selecting youths and matching them with employers.

## Analysis of Employer Outcomes

The effect of program participation upon employers has considerable consequences. For example, research has shown that if an employer has a good experience with the program, that employer often is willing to train additional disadvantaged youths and to aid in enlisting other employers to do the same (cf. P/PV, 1982). Three distinct outcome indicators were included in the employer survey:

- increased employer effort to recruit and hire youths;
- changes in company attitudes and practices on hiring youth;
- increased employer willingness to participate in employment and training programs.

Most employers (about 70%) responded that the program had no impact on the first two indicators. They had not altered their efforts, attitudes, or practices regarding youth hiring. It is possible that the lack of change along these dimensions has little to do with program quality. For example, the results may be the result of the lack of demand for labor which, in turn, is dependent upon business conditions or other factors. The reader should keep in mind that these programs overlapped the current recession.

Participation in these programs did appear to incline employers to make more use of youth employment and training programs. Four out of ten employers in Project Opportunity Phase I and a similar number in Open Road/New Jobs reported that they were more willing to participate in youth programs. Comparatively few (11% in Project Opportunity Phase I and 20% in Open Road/New Jobs) indicated less willingness. These opinions were empirically borne out in Project Opportunity Phase II where 20 of the 43 employers were repeat customers who readily agreed to train additional youths. The positive response towards youth training programs was, in all likelihood, related directly to quality of service delivery. As the data in Table 18 clearly show, the great majority of employers were satisfied with the quality of service and overwhelmingly found the job developers' visits and calls to be helpful and not disruptive.

## Job Creation

Job creation is another possible output of these programs. In order to gauge the rate of job creation, employers were asked whether or not the youth's work experience

## Table 18

## Employers' Views of Program Services

| | PO I | | PO II | | OR | |
|---|---|---|---|---|---|---|
| **Satisfaction** | n | % | n | % | n | % |
| Very Satisfied | 34 | 52% | 19 | 61% | 26 | 43% |
| Satisfied | 25 | 39% | 11 | 36% | 30 | 49% |
| Dissatisfied | 6 | 9% | 1 | 3% | 5 | 8% |
| | 65 | 100% | 31 | 100% | 61 | 110% |
| **Close Staff Contact** | | | | | | |
| Helpful | 56 | 98% | 27 | 96% | 57 | 96% |
| Disruptive | 1 | 2% | 1 | 4% | 2 | 4% |
| | 57 | 100% | 28 | 100% | 59 | 100% |

## Table 19

## Work Experience Position Created for Program Youth

| | Yes | | No | |
|---|---|---|---|---|
| | n | % | n | % |
| PO I | 24 | 38% | 40 | 62% |
| PO II | 10 | 31% | 22 | 69% |
| OR/NJ | 24 | 40% | 36 | 60% |
| Total | 58 | 37% | 98 | 63% |

position was an existing vacancy or whether it was created specifically to accommodate the program youth. Table 19 displays the number and percent of employers who created the position to accommodate the trainee.

In each program, between 30% and 40% of the work experience traineeships were created specifically for project youth. Admittedly these "jobs" are of short duration and are publicly subsidized. Therefore, although the programs appear to have impact in terms of traineeship creation, we would have to analyze whether or not these youths were eventually hired by their training employer if we were to assess job creation. Unfortunately, we do not have direct evidence since the data do not permit us to cross-step from a traineeship creation to hiring the youth in a full-fledged, unsubsidized job.

Tabulations were analyzed to explore the degree to which job creation might relate to firm characteristics. No pattern was apparent in the response frequencies by industry, size, owner-management, type of business, or age of employees. In other words, there was no reason to believe that whatever job creation may have existed depended upon any of these firm characteristics.

### The Wage Subsidy

The nature and impact of wage subsidies in public employment policy has attracted considerable attention (Palmer, 1978). Our study, though limited in scope, addresses a number of issues concerning direct employer subsidies. In addition to our survey data, structured group interviews were held with sixteen Project Opportunity Phase II employers. These sources provide valuable insight into employers' views about the direct subsidy for youth wages and the mechanism for dispensing it.

Participant employers unanimously agreed in their group interviews that the wage subsidy was key in their agreeing to train youth because it diminished their risking the time and money involved in training an entry-level employee. The wage subsidy was perceived as a reimbursement for the training. As one employer put it: "Training time costs a fortune. The subsidy up front was very important."

In addition to the subsidy's positive effect in terms of attracting employers, an equally critical finding that emerged from the group interviews was that employers all agreed "the 100% subsidy bought tolerance." Employers contended that the subsidy enabled them to go to extra lengths in working through trainee problems such as tardiness and absenteeism. This special attention may be a critical ingredient in programs which serve a disadvantaged population lacking in job readiness. Given that five out of ten Project Opportunity Phase I and Open Road/New Jobs employers who completed the phone survey (n=142) believed that program youth required more supervision than the usual entry level employer, "going the extra mile" with a youth could indeed make the difference between failure and success. While the disposition of individual employers and the work of the job developer certainly influenced the employer's "tolerance," the wage subsidy also seemed to have a major impact.

In terms of varying the subsidy, employers had mixed opinions. A myriad of variations were advanced such as "75% for two months then 50%;" "make it depend on the individual, 'til you know if the youth is really into it." However, we did learn that the original 100% wage subsidy that Project Opportunity Phase I and Open Road/New Jobs offered could be reduced after several months of training to the 50% level with no apparent negative effects. In fact, employers felt this was attractive for two reasons. First, since most of the training and most of the non-positive terminations occur within the first several months, the full subsidy for this initial period adequately compensated for employer risk. Second, by paying a portion of the youth's salary, responsibility to the business as opposed to the program was driven home. While lauding the fact that the program handled all of the paperwork, several employers felt that this contributed to youth perceiving themselves as principally accountable to the programs, not the employer. Further, with respect to the 50% employer buy-in after three months, examination of termination data allayed the fear that employers would jettison youth when the 100% subsidy ran out. Both the quantitative and the interview data indicate that employers were willing to invest in training via their 50% wage payment after the full subsidy period was exhausted.

On the procedural level, collecting the employer's share did not prove to be a problem. Project Opportunity Phase II continued to collect the youths' time sheets from employers every week and to pay the youths directly. Then, on a monthly basis employers were billed for their portion of the costs. Billing to employers averaged over $3,600 per month and invoices were generally paid promptly. Total employer billing for Project Opportunity Phase II tallied $23,116 and only 4% ($853) went uncollected. All in all, sharing the youths' wages appeared quite workable from the employers' perspective.

In order to investigate the degree that the subsidy offset training costs, we included an item in our employer survey which asked employers whether overall they "saved money, broke even, or lost money in taking on a youth." Results are displayed in Table 20.

## Table 20

Employer Opinion of Program Investment

| | PO I | | PO II | | OR | |
|---|---|---|---|---|---|---|
| | n | % | n | % | n | % |
| Saved Money | 34 | 59% | 16 | 52% | 20 | 34% |
| Lost Money | 15 | 26% | 5 | 16% | 20 | 34% |
| Broke Even | 9 | 15% | 10 | 32% | 19 | 32% |
| Total | 58 | 100% | 31 | 100% | 59 | 100% |

Responses are subjective and are based on general perceptions not precise accounting data. Nonetheless, it is puzzling that Project Opportunity Phase II, where the actual dollar value of the subsidy decreased because of the employer match, evidenced the smallest percent of employers who felt they had "lost money on the program." Perhaps this is attributable to the higher caliber of youth that program staff felt enrolled in the second phase. Over half the Project Opportunity employers in each phase felt that income from the wage subsidy more than equalled costs involved in training the youth. In Open Road/New Jobs, the employers were equally distributed across the three categories which supports the process evaluation's suggestion that the Open Road/New Jobs participants may have been less ready for a work experience.

### Productivity

To assess the productivity of trainees, employers were asked "how well program youths performed in comparison with the typical entry level employee." Almost half of 142 Open Road/New Jobs and Project Opportunity Phase I employers believed that program youths performed below the level of their typical entry level employees. Less than one in ten rated the trainee's productivity higher than a typical employee. Interestingly, overall business activity for some participating firms was reported to increase during the period of program participation even though trainees were not as individually productive as typical employees. The data does not permit us to conclude that the business productivity noted by over half the Project Opportunity Phase I and Open Road/New Jobs firms is directly related to program participation. However, anecdotal evidence suggests that in very small establishments who could not afford to hire additional employees the trainees' presence freed up owners to engage in a greater degree of business development activities.

In summary, employers look upon these programs very favorably. In spite of the fact that many trainees did not perform as well as typical entry level employees, employers may have exercised more tolerance with these youth due to the fiscal subsidy and the help of the job developer. The subsidy, the lack of paperwork, and the opportunity to teach a trainee appeared to be most powerful incentives to employer participation. Employers pointed out that the immaturity and educational deficiencies of participants were the major problems. In terms of program impact, the data hints that the programs have modest job creation effects. The programs appear to be tapping an underutilized employment and training resource, the small business sector, and to enjoy some success in motivating employers to make greater use of public employment and training programs.

# CHAPTER IX: SUMMARY OF FINDINGS AND RECOMMENDATIONS

This chapter presents our key findings relative to Project Opportunity and Open Road/New Jobs. In addition to summarizing policy relevant results, suggestions useful to program planners and practitioners are set forth.

## Policy Implications

From a policy perspective, the major questions concerning the use of wage subsidies are:

- do employers respond to this type of programming?
- do the youth improve their labor market status?

Given the limited number of the programs, we must be cautious in drawing inferences; however, the answer to the first question appears to be yes. Less than one in ten of the employers were dissatisfied with program services, and employers were especially pleased with three program features:

- the absence of paperwork and red tape that resulted from the programs' handling youth payroll and other administrative duties.
- the opportunity to teach a trainee
- the wage subsidy.

While the role of job developer was critical to employer involvement, the subsidy also appeared to heighten involvement. Not only did employers perceive the subsidy as diminishing the costs and risks in training youth; but anecdotal evidence indicates that the subsidy "bought tolerance," motivating employers to go to extra lengths in working through trainee problems. In terms of the exact rate of subsidy, employers' views were not consistent. But, the Project Opportunity II experience testifies that after several months of a full 100% wage subsidy which offset the risks to the employer, employers were ready and willing to shoulder half of the youth wages for the remaining months of the work experience placement. `In terms of the impact upon employers, the programs appeared to incline a sizeable portion (40%) of employers to participate more in employment and training programs in the future (as opposed to about 15% who were less willing). This finding is especially noteworthy because about half the employers believed that program youths performed below the level of typical entry-level workers. Finally, almost 80% of the employers had never hired a youth from an employment and training program which indicates that this form of program intervention is capable of tapping a new and viable source of private sector training, small businesses.

But, do the programs improve the subsequent earnings of youth? Available data are negative, but limited to a single program, Project Opportunity Phase I, where there was no post-program earnings impact. Both of the other programs (Open Road/New Jobs and Project Opportunity Phase II) which were not followed-up as a result of cost consideration, clearly outperformed Project Opportunity Phase I on conditional measures of performance obtained at termination and cost measures. It is possible that these two programs significantly improved participants' job prospects, but there are no data to test this speculation.

On other indicators, the programs fared better. When compared to selected youth training programs, Project Opportunity II and Open Road/New Jobs appear to be on an equal or better performance level. Their combined job placement rate at termination more than doubled that of the 1980 national YETP programs (19%) and almost equalled the placement rate of adult work experience programs. In terms of cost, the programs were more expensive than comparable efforts during their start-up year; but assuming that the better established Project Opportunity Phase II is a fair reading of costs that these models can attain, they approximate those formula-funded programs which are most similar: OJT and Work Experience. We stress that both the termination and cost findings are imperfect estimators at best. Differing program objectives and the lack of more meaningful cost indicators greatly inhibits inter-program comparison.

In summary, the viability of the subsidy mechanism and the responses of small businesses were encouraging; but, until more broad-based research is undertaken, it remains to be seen whether this mechanism can contribute to long term employability of disadvantaged youth.

## Program Refinements

In spite of their generally successful operation, each program could have refined its design. Twenty percent of employers interviewed felt that the youth could have been better matched in the training placement. In Project Opportunity, matching may have been improved had there been a brief pre-placement training component wherein youth could more comprehensively specify their interests and receive basic training in job-holding behavior. Open Road/New Jobs would have done well to eliminate its cyclical enrollment system. Enrolling youth in two major waves of sixty taxed Open Road staff and may have contributed to sub-optimal matches of youth with employers. A continuous intake system with concentrated, bi-weekly pre-employment workshops for new enrollees would have better distributed the Open Road/New Jobs work load without significantly detracting from the job training. In addition, the usefulness of the Open Road/New Jobs job bank was questionable. Various reasons, cited earlier in the report, resulted in comparatively few youths (25%) entering job bank placements. The substantial amount of time devoted to assembling the job bank commitments -- coupled with the bank's underutilization -- made it a doubtful program feature.

Neither program performed well in facilitating program youths' earning a GED. This appears to be a prevalent problem in employment and training programs and warrants closer scrutiny. Another widespread difficulty which was encountered in these programs involved the screening and selection process. Open Road/New Jobs staff believed that the screening, performed by the Job Service, was not sufficiently comprehensive and resulted in the referral of a high proportion of youths who were not prepared for the demands of the private sector work experience. On the other hand, Project Opportunity staff felt that its local Job Service spent entirely too much time in certifying and screening which frustrated many youths, causing premature withdrawal from the application process. Staff in both programs suspected that the Job Service catered to established programs as opposed to new, time-bound demonstration efforts and, in Project Opportunity, it was felt that the type of youth referred from the Job Service varied according to local economic conditions. In combination with similar findings in other P/PV demonstration projects, these observations call into question the precision of the certification, screening, and program referral process in general. Closer scrutiny of the CETA eligibility determination and referral process appears warranted.

# PART II:

# OCCUPATIONAL ACCESSING STRATEGIES

As mentioned in the introductory chapter, occupational training programs have been a prominent service offering since the early 1960's. Initially, skills training programs were established to meet the need for "skills retraining" among experienced members of the workforce suffering high unemployment. Since then, the target population of skills training programs has expanded to include large proportions of disadvantaged trainees. Generally, results have been positive with skills training programs having significant impacts on the post-program earnings of enrollees (cf. Perry et al, 1975). Nevertheless, little is known about the effects of skills training on a younger population, and many believe that youth have not "settled down" sufficiently to commit themselves to a specific occupation. Further, review of the skills training literature suggests that:

> Training produces earnings gains without achieving substantial occupational mobility for more than a small minority of participants. "Quantum leaps" into new careers are achieved by few. (Taggart, p. 120)

Theoretically, "quantum leaps into new careers" might occur via carefully crafted programs that are capable of supplying trained workers either:

- in occupations where severe skills shortages are present; or,
- in emerging occupations that promise extensive job opportunities.

In both situations, the successful program must couple the presence of demand with the absence of structural barriers such as established legal or induction requirements that would be difficult hurdles for out-of-school, disadvantaged youths. Two programs were initiated by P/PV in late 1979 to test whether planned occupational accessing strategies that address local employment needs would work for youth:

- Machine Trades Training Program for Youth (MTTPY), operated by Cuyahoga Community College in Cleveland, Ohio.

- Career Pathways in Energy Conservation (CPEC), operated in Boston by the Technical Development Corporation (TDC).

In reporting our findings regarding these two programs, we follow a schema that parallels Part I. First, in Chapter X, the MTTPY and CPEC programs are described in their ideal, as envisioned by their planners. Next, Chapter XI, "The Models in Action," depicts how each program functioned during its year of operation. Chapters XII and XIII examine youth termination status and cost-effectiveness respectively. As noted, no post-program follow-up was undertaken with MTTPY or CPEC. Therefore, we summarize findings and recommendations in the concluding chapter.

# CHAPTER X: THE MODELS IN THEORY: MTTPY AND CPEC

Both models were created de novo for this demonstration. Although independently planned, they were remarkably similar. The design of each program featured a selective screening process and a fairly similar set of programmatic components which are charted in Figure II.

Figure II

Service Components: MTTPY and CPEC

| | MTTPY | CPEC |
|---|---|---|
| Screening & Intake | x | x |
| Diagnostic & Career Prep | x | |
| Classroom Training | x | x |
| On-Site Work Experience | x | x |
| On-Job Training (OJT) | x | x |
| Unsubsidized Job Placement | x | x |

Each program relied on its respective Prime Sponsors to recruit, screen and refer youth. Because of the highly skilled nature of the training, the prime sponsors agreed to refer youth who had mastered the basics in reading and mathematics. Youth were recruited in successive waves or cycles as opposed to continuous intake.

## MTTPY

MTTPY concentrated on training disadvantaged youth for the machine trades, a field which was experiencing acute problems in attracting skilled workers. Following acceptance into the program, participants spent over a month in a Diagnostic and Career Prep phase. For a few youth, this component served as a secondary screening net, and after closer exposure to the machine trades, they were referred to other programs more in keeping with their skills and interests. For most youth, this "prep" was just what the title denotes -- a preparatory education for the machine trades. Featuring a programmed learning system, students worked their way through basic math and shop skills.

Having learned the basics, MTTPY youth progressed to an Applied Skills Training phase that ran for over two months. Instruction took the form of actual work on machines combined with continuous classroom instruction. Next, youth advanced to a stage termed Transitional Employment Services. This subsidized work experience called for each participant to spend 2.5 weeks with a private sector employer to sample what work in the trades really entailed.

Post-transition, the employer was encouraged to enter into a traditional OJT contract which could run up to 26 weeks, at the end of which time it was expected that the employer would hire the youth.

MTTPY has at times been dubbed both a "sponsorship" and a "spur" model. The former term applied to the program's emphasis that during the last week of "prep," youth would be introduced to a specific employer who would "adopt" the trainee. This nonbinding agreement called for employers to follow the youth's classroom progress and provide the sequence of Transitional Employment, OJT, job. The "spur" model was meant to connote that, after the "prep" component, the MTTPY program could have several exit points. For example, it was quite acceptable for youth to move into an unsubsidized job without participating in the intervening phases of training.

### CPEC

CPEC did not have a formal preparatory phase. Youth moved directly into a two month classroom experience that offered both theoretical and applied learning. Also adopting a sponsor approach, classroom training was followed by a ten week phase which was split evenly between work experience and advanced in-classroom education. Similar to MTTPY, an OJT contract capped the training sequence.

Both programs offered job placement services for youth who were not absorbed into unsubsidized jobs at the end of their program involvement. In terms of magnitude both programs planned to serve about 100 youth per year at a cost of about $800,000 per program.

# CHAPTER XI: THE MODELS IN ACTION

## Machine Trades Training Program for Youth (MTTPY)

MTTPY was administered by the Cuyahoga Community College. The college, founded in 1963, serves metropolitan Cleveland, with its population of 1.5 million. Offering a two-year associate degree, the College enrolls almost 25,000 students and is one of Ohio's largest educational institutions. Career and technical offerings feature specialized instruction in more than fifty occupational fields. Over the years, the College has worked closely with local officials on a number of urban problems including employment and training. Both the prime sponsor and the college are under the executive authority of the Cuyahoga County Commissioners and this arrangement facilitates close working relationships.

In terms of this demonstration, the college entered the planning almost a year after negotiations had begun. This was because earlier efforts had run into a number of obstacles. In fact, during February 1979, after months of planning, the project appeared stymied. Within a comparatively brief time, college personnel were able to plan the program, mobilize resources, negotiate the contract, and begin operations in the Fall of 1979.

The goal of MTTPY was to alleviate a manpower crisis faced by the Cleveland area's machine trades industry. Cleveland, acknowledged as a world center for the machine tool industry, boasts several hundred firms employing thousands of skilled machinists. In 1977, there was concern because of a diminishing availability of skilled labor. As one source noted: "The sons were not taking up the tools of their fathers." Long-term projections increased this concern since hundreds of workers were scheduled to retire during the late 1970's and early 1980's. Although a half dozen scattered programs, ranging in form from high school vocational education to proprietary curricula, offered some form of machine trades training, they differed widely in level and duration of skill training and were judged insufficient to offset the shortage. In brief, local officials judged that the area lacked an effective system for skill training and induction into the machine occupations.

At the same time, the youth unemployment level in Cleveland had risen to approximately 40% and was especially acute among poor, inner city youth. A match between the supply of unemployed youth and the demand for entry-level machinists in the form of an intensive training program made implicit sense.

### Recruiting and Screening: MTTPY

The program sought to train 126 youth during the first year of operation. All youth in addition to being out of school and meeting other CETA requirements were to be at least 17 years and nine months of age at intake. The reason for this is that upon completion of training they would be 18 years old, the minimum age in Ohio for operating power equipment. Eligible youth were to be referred to the program from the local prime sponsor whose assessment process included extensive occupational testing.

MTTPY did not experience problems in recruiting sufficient youth. In fact, after the first promotional session, 300 students from the College itself applied for program admission (only four proved CETA eligible). In retrospect, several factors contributed to MTTPY's successful enlistment of youth. First, Cleveland's Prime Sponsor and Employment Service enjoyed a strong working relationship that has been viewed as exemplary within the youth employment world. Second, the program's start-up was ushered by a concerted publicity campaign that encompassed extensive coverage by the local media. The highlight was a televised press conference where the Mayor and College President discussed the new program. Third, as mentioned, there was a large pool of unemployed youth from which candidates could be drawn.

Some problems were experienced in terms of the quality of applicants. In spite of a cooperating agreement with the prime sponsor to refer candidates demonstrating at least seventh grade reading and math ability, about a third fell below this level. However, a self-paced competency curriculum combined with individual tutoring enabled practically every student to obtain acceptable cut-off scores which qualified them to move from the initial Diagnostic and Career Prep stage to the Applied Skill Training module. Overall, intake went as planned with approximately twenty-five youth being enrolled for each of six cycles. The cycles were timed so that a new wave would enter every five weeks with the last group matriculating in June of 1980.

### Participant Characteristics: MTTPY

The program sought to enlist older youth who would not face legal barriers or age biases once they were ready for full-time machinist work. Of 121 enrollees, 98% were eighteen at the time of intake with more than half of the youth being twenty or twenty-one years of age (see Table 21).
Over eighty percent of the participants were black and a similar proportion were male. The group was evenly divided between high school drop-outs and graduates with almost one in ten youth having received some post-secondary education. As noted, a third of the youth read at a less than seventh

## Table 21

### Distribution of Participant Characteristics at Intake: MTTPY*

| Characteristics | MTTPY<br>n | <br>% |
|---|---|---|
| | (n = 121) | |
| **1. Age** | | |
| 16 and under | 0 | 0% |
| 17 | 2 | 2% |
| 18 | 28 | 23% |
| 19 | 25 | 21% |
| 20 | 36 | 30% |
| 21 | 29 | 24% |
| Mean | 19.4 | |
| S.D. | 1.15 | |
| **2. Sex** | | |
| Male | 102 | 84% |
| Female | 19 | 16% |
| **3. Ethnic Group** | | |
| White | 14 | 12% |
| Black | 99 | 82% |
| Hispanic | 8 | 7% |
| **4. Family Status** | | |
| Head of Household | 13 | 11% |
| Member of Family | 77 | 65% |
| Family of One | 29 | 24% |
| **5. Number of Dependents** | | |
| zero | 96 | 79% |
| 1 | 17 | 14% |
| More than 1 | 8 | 7% |
| Mean | .27 | |
| S.D. | .58 | |
| **6. Educational Grade Completed** | | |
| Less than 9 | 1 | 1% |
| 9 | 5 | 4% |
| 10 | 14 | 12% |
| 11 | 40 | 33% |
| High School/GED | 47 | 39% |
| Post Secondary | 11 | 9% |

NOTE: Percentages do not sum to 100 due to missing responses.

## Table 21 (continued)

### Distribution of Participant Characteristics at Intake: MTTPY

| Characteristics | MTTPY<br>n | <br>% |
|---|---|---|
| | (n = 121) | |
| **7. ABLE Reading Score (Grade Level)** | | |
| 3 - 4.9 | 11 | 9% |
| 5 - 6.9 | 30 | 25% |
| 7 - 8.9 | 36 | 30% |
| 9 | 42 | 35% |
| Mean | 7.39 | |
| S.D. | 1.75 | |
| **8. Ever Enrolled in Training Program** | | |
| Yes | 65 | 54% |
| No | 56 | 46% |
| **9. Ever Held Full or Part-time Job** | | |
| Yes | 96 | 79% |
| No | 25 | 21% |
| **10. Job Holders Who Worked During 12 Months Prior** | | |
| Yes | 74 | 77% |
| No | 22 | 23% |
| **11. Hourly Wage of Last Job Ever Held** | | |
| Mean | $ 3.43 | |
| S.D. | .88 | |
| **12. Hourly Wage of Last Job Within 12 Months** | | |
| Mean | $ 3.45 | |
| S.D. | .80 | |
| **13. Hours Worked per Week on Last Job Ever Held** | | |
| Mean | 36.6 | |
| S.D. | 8.9 | |
| **14. Hours Worked per Week on Last Job Within 12 Months** | | |
| Mean | 38.1 | |
| S.D. | 8.6 | |

grade level; however another third (35%) achieved the highest test grade, reading at a ninth grade or higher level. The mean reading level was at the 7.4 grade equivalency. In terms of family status, the majority were members of families (65%) and 11% were family heads; 24% were families of one. Two out of ten youths claimed dependents.

In terms of work history, more than half the youth (54%) had been enrolled in prior training and 79% had held previous jobs. More than three quarters of these jobs were within the calendar year preceding the youth's intake into MTTPY. Previous jobs were for the most part full-time, with the average hourly wage being $3.43. Overall, the MTTPY cohort was better qualified than most youth served by federal employment programs and appeared to possess the basic experience and aptitude required to successfully complete the fairly technical training sequence.

### Diagnostic and Career Prep: MTTPY

Once accepted into the program, each youth cohort began the four to six week preparatory classroom experience whose aim was to develop basic shop skills in such areas as fractions, decimals, use of gauges and instruments. A lock-step competency curriculum was used and each participant was required to score 80% proficiency before moving to the next element. Data on twenty-three Cycle I youth attest to the efficacy of this learning system. Pre-test scores in shop math averaged 26% while the mean for post-training re-tests was 92%.

In addition to cognitive work, the preparatory phase accented career paths within the machine trades by means of a lecture series featuring machinists (including female and ethnic minority members), union leaders, and management personnel. Some job readiness training, such as completing a job application, was also offered. Finally career counseling which utilized aptitude and ability tests was conducted with a few youth who did not appear well-matched to the machine trades. On the average 2.5 youth per cycle did not complete the preparatory phase and were, in most cases, referred for other training.

### Applied Skill Training Phase: MTTPY

The majority of youth (87%) successfully entered this second phase, having achieved required competency scores in their shop sequence. During the Applied Skill Training, part of the day was devoted to classroom work, but the bulk of instruction consisted of hands-on training at a local skill center. Trainees began by producing basic products (e.g., a corrugated metal block, an all metal hammer) which required blueprint reading, machine set up, and operating several machines including lathes, threaders, and grinders.

Staff encountered some typical problems with youth (e.g., lateness and absenteeism) and some unusual ones. For example, an apprentice could start at $9.00 per hour which was far above the experiences and hopes of many youth; instructors reported that one of their challenges was to convince youth that they could indeed attain these wages.

Information derived from competence testing and evaluator visits suggests that this phase was effective in instilling sound work habits and developing strong, basic machine trade skills. Perhaps the most distinctive finding is that 92% of the youth successfully completed this ten week basic training phase. Although much of this success seems attributable to quality planning, the caliber of the instructors was judged to be a primary ingredient. The majority of instructors for both the prepartory and applied training were retired union machinists who knew their trade, could teach it, and were apparently able to convey a sense of discipline. In addition to teaching, instructors kept careful records of trainee performance and toward the end of the skill training phase, these accomplishments were woven into letters of reference and resume material. The instructors all had contacts in local firms and this informal system proved helpful in placing trainees in further work site training and in unsubsidized jobs.

During the prepatory stage the trainee was paid a minimum wage stipend which was embellished by incentive raises in the skill training stage.

## Transitional Work Experience: MTTPY

Upon successful completion of the skills training curriculum, the trainee progressed to an activity that distinguished the MTTPY program, transitional work experience. This program component consisted of placing youth in actual work settings for 100 to 110 hours of on-site work experience. This comparatively brief subsidized work experience was designed to give youth a real taste of the work world, and employers a preview of individual youth's capacities.

Employer sponsors were recruited by MTTPY's job developer early-on and, at the end of the "prep" stage, they were given the opportunity to interview - and accept or reject - a particular trainee. Sponsors were kept appraised of their trainees' progress during the Applied Skills Training period and before the youth started with the employer a formal written compact was signed. The compact specified that the sponsoring employer would provide the youth with a work opportunity that "shall have a minimum duration of 100 hours, for which CETA allowances will be paid to the trainee." The compact further noted that the objective of this Transitional Work Experience was "to provide a successful trainee with regular industry employment following training" but that the agreement did not require the employer to "guarantee employment." Employers were encouraged to record specific deficiencies in a trainee's performance so that these might be corrected through a brief return to the skills center, or perhaps a talk with a staff member.

Only about half of the youth who completed the skill training phase enrolled in Transition Work Experience. Some youth skipped this stage to take OJT or unsubsidized jobs, while others simply dropped out. However, our data do not permit an exact breakdown on the employment status of youth who did not enter the Transitional Work Experience. Anecdotal evidence indicates that sufficient employers were recruited and that the sponsorship component, wherein employers were kept abreast of their youth's progress, was an effective way of maintaining employer involvement.

### OJT Phase: MTTPY

Employers who offered transitional work experience were encouraged to continue the youth's placement by means of a formal OJT agreement (or to hire the youth directly). The OJT arrangement, facilitated by program staff, provided up to 26 weeks of on-the-job experience. A contract between the Cleveland Prime Sponsor and the individual employer permitted half the wages to be reimbursed by the Prime Sponsor who originally set aside 90 OJT slots for the MTTPY program. The arrangement ran rather well for the first two cycles. Fifteen of the seventeen youth who completed the transition phase continued to work under OJT contracts.

At the end of 1979, the program encountered grave problems. Massive layoffs in the automotive industry left Cleveland with 30,000 idle workers. Over 50% of the machine trades employment was allied to the automotive industry. Monthly progress reports from MTTPY to P/PV during the early months of 1980 repeatedly noted: "Recession continues to diminish participant placement prospects." Where there had been a skill shortage, abruptly there was a skill surplus. As well, the Prime Sponsor delayed in honoring bills from OJT employers and the program was hesitant to draft new OJT pacts. Whereas 60% of the participants from Cycles I and II had garnered post-program jobs in the machine trades, only 20 of 74 enrollees (27%) in Cycles III through V attained jobs of any sort.

The program design was revamped, and instead of continuing to enroll new youth, the final sixth Cycle re-enrolled 28 out-of-work participants from previous cycles in a stepped-up training sequence. Staff hoped that by significantly augmenting their skill levels, youth could better compete for available jobs. This strategy experienced moderate success. Two thirds of the youth were positively terminated with ten of these securing machinist positions.

## Job Search Assistance: MTTPY

This final program component consisted of program staff serving as job placement specialists for program completers who were not absorbed by OJT employers. As conceived, only one in four participants would require these services since most would have attained employment via their sponsoring employer. A six week limit per youth was allotted for this service which sought to tap the Ohio Bureau of Employment Services as well as businesses directly in order to secure jobs for graduates. In reality, the number of youth who completed the program without attaining placement far exceeded planning projections and the job placement function assumed unforeseen import.

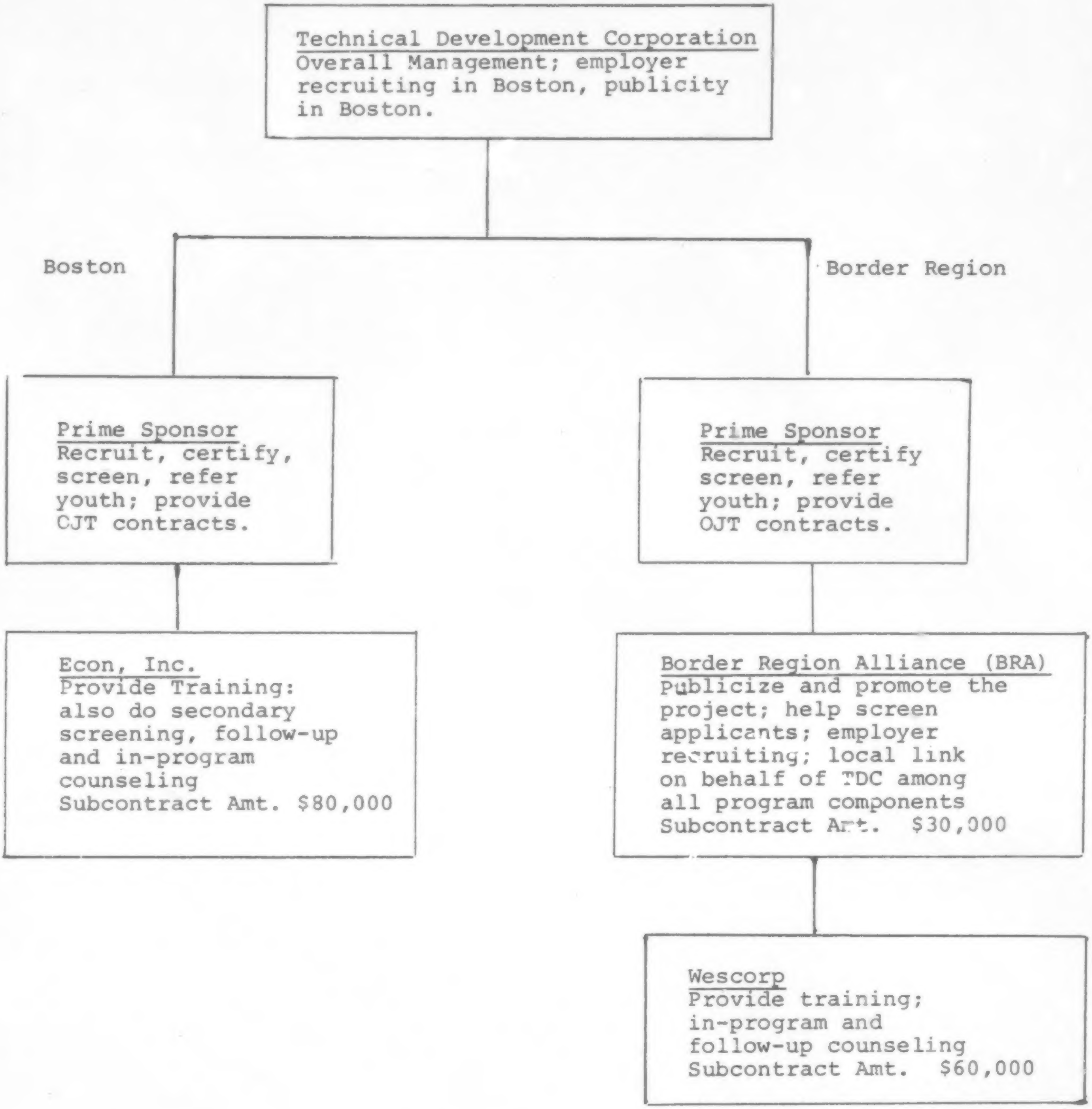
## Career Pathways in Energy Conservation (CPEC)

This program which sought to train and place youth in the energy conservation field was managed by the Boston-based Technical Development Corporation (TDC). Founded in 1969 as a non-profit corporation, TDC's speciality had been developing and spinning off innovative programs particularly in the fields of employment and training, economic development, and energy. During the mid-seventies, TDC was active in program design and research projects that dealt with solar energy devices, energy conservation, and a curriculum for energy education training. A particularly important undertaking was a 1977 job market study of opportunities for energy conservation technicians which optimistically predicted abundant job openings in this emerging field, identified placement potential with particular firms, and sketched career ladder prospects. The study was performed as part of a training venture that ECON, Inc., a private energy conservation firm, was packaging for the Boston Prime Sponsor and supported ECON's belief that there was a demand for trained workers in the energy field. ECON's original emphasis was training for economically disadvantaged adults; but, after TDC met several times with P/PV during 1978, it was agreed that a youth training effort also had merit and in the Fall of 1979 the CPEC program began.

The goal of CPEC was to place 100 out-of-school, disadvantaged youth in entry-level positions with energy related employers. Youth were to be trained in two waves of fifty each. Each group of 50 was equally divided between two service areas: Boston and the "Border Region," a section of the Merrimack Valley encompassing the Lowell-Lawrence, Massachusetts area and Hillsboro Country, New Hamphire.

Unlike MTTPY which featured a single delivery agency, TDC elected to enter into a series of subcontracts, each addressing specific functions of the program. Figure III depicts this arrangement.

Figure III CPEC Service Delivery Flow



**Technical Development Corporation**
Overall Management; employer recruiting in Boston, publicity in Boston.

Boston

**Prime Sponsor**
Recruit, certify, screen, refer youth; provide OJT contracts.

**Econ, Inc.**
Provide Training: also do secondary screening, follow-up and in-program counseling
Subcontract Amt. $80,000

Border Region

**Prime Sponsor**
Recruit, certify screen, refer youth; provide OJT contracts.

**Border Region Alliance (BRA)**
Publicize and promote the project; help screen applicants; employer recruiting; local link on behalf of TDC among all program components
Subcontract Amt. $30,000

**Wescorp**
Provide training; in-program and follow-up counseling
Subcontract Amt. $60,000

## Recruitment and Screening: CPEC

CPEC began its first training cycle in October 1979 with 48 of its planned 50 youth, but the recruitment road was a rough one, especially in the Border Region where only 19 youth were enrolled. This shortfall was surprising given ample lead time (recruitment began in July) and a substantial number of reportedly unemployed youth. TDC staff argued that neither the Border Region Alliance (BRA) nor the prime sponsors held up their end of the bargain. BRA, a non-profit spin-off from the National Alliance of Business, had been contracted to publicize the program and aid in screening applicants. The local prime sponsors claimed that unemployment was down and that it had to cater to established programs who were having enrollment problems. In an effort to shore up the shortfall, several extra participants were recruited in Boston.

In spite of plans, negotiations, and promises, Cycle II recruitment fared even worse. The Border Region did not improve its volume and, in Boston, there was slippage. TDC staff conjectured that in Boston "youth were being maneuvered into 'pet' programs." It became "so bad that if you sent a youth over there (to the Boston Prime) you'd never see them again." Part of the Boston problem came from a mid-stream switch that tightened eligibility criteria: Cycle I youth could qualify by meeting legislative criteria set forth in Title II-D, but the tables were turned when the Prime Sponsor ruled that Cycle II youth had to meet all criteria from three distinct titles because funding for various CPEC components came from Titles II-B and VI as well as II-D. In the end, the program fell about 10% short of its projected one hundred enrollees.

## Participant Characteristics: CPEC

Table 22 presents demographic and socio-economic data for the CPEC youth. For reasons similar to MTTPY, (e.g., working age regulations), CPEC concentrated on older youth. About half the CPEC youth were twenty or twenty-one years old at intake with only four young persons at the 16-17 age interval. Average age at entry was 19.4 years. The typical enrollee was white (64%) and male (79%) still living with his family (62%). Only five of the eighty-seven youth claimed dependents.

CPEC did not offer a formal diagnostic and preparation component like MTTPY; rather, CPEC relied upon local Prime Sponsor systems to screen appropriate candidates. Instructors, however, voiced deep concern over the poor quality of participants' basic math and reading skills. Interestingly, our data do not support the program instructors' contention that CPEC youth were poorly educated. For example, ABLE reading scores were collected on half the CPEC youth (n=58).

## Table 22

## Distribution of Participant Characteristics at Intake:

| Characteristics | CPEC<br>n | <br>% |
|---|---|---|
| | (n = 87) | |
| 1. Age | | |
| 16 and under | 1 | 1% |
| 17 | 3 | 3% |
| 18 | 19 | 22% |
| 19 | 22 | 25% |
| 20 | 19 | 22% |
| 21 | 23 | 26% |
| Mean | 19.4 | |
| S.D. | 1.25 | |
| 2. Sex | | |
| Male | 68 | 78% |
| Female | 19 | 22% |
| 3. Ethnic Group | | |
| White | 56 | 64% |
| Black | 21 | 24% |
| Hispanic | 7 | 8% |
| Other | 3 | 3% |
| 4. Family Status | | |
| Head of Household | 5 | 6% |
| Member of Family | 54 | 62% |
| Family of One | 28 | 32% |
| 5. Number of Dependents | | |
| zero | 82 | 79% |
| 1 | 4 | 5% |
| More than 1 | 1 | 1% |
| Mean | .0 | |
| S.D. | .58 | |
| 6. Educational Grade Completed | | |
| Less than 9 | 6 | 7% |
| 9 | 5 | 6% |
| 10 | 13 | 15% |
| 11 | 6 | 7% |
| High School/GED | 46 | 53% |
| Post Secondary | 11 | 13% |

NOTE: Percentages do not sum to 100 due to missing responses.

## Table 22 (continued)

## Distribution of Participant Characteristics at Intake: CPEC

| Characteristics | CPEC<br>n | <br>% |
|---|---|---|
| | (n = 87) | |
| 7. ABLE Reading Score (Grade Level) | | |
| 3 - 4.9 | 0 | 0 |
| 5 - 6.9 | 1 | 2% |
| 7 - 8.9 | 10 | 17% |
| 9 | 47 | 81% |
| Mean | 8.85 | |
| S.D. | .43 | |
| 8. Ever Enrolled in Training Program | | |
| Yes | 41 | 47% |
| No | 46 | 53% |
| 9. Ever Held Full or Part-time Job | | |
| Yes | 71 | 82% |
| No | 16 | 18% |
| 10. Job Holders Who Worked During 12 Months Prior to Intake | | |
| Yes | 53 | 75% |
| No | 18 | 25% |
| 11. Hourly Wage of Last Job Ever Held | | |
| Mean | $ 3.43 | |
| S.D. | .68 | |
| 12. Hourly Wage of Last Job Within 12 Months | | |
| Mean | $ 3.43 | |
| S.D. | .68 | |
| 13. Hours Worked per Week on Last Job Ever Held | | |
| Mean | 36.0 | |
| S.D. | 8.5 | |
| 14. Hours Worjed per Week on Last Job Within 12 Months | | |
| Mean | 36.6 | |
| S.D. | 8.5 | |

These reveal that over 80% of the youth read at a "ninth grade plus" level with only a single participant reading below the seventh grade norm. Of the full sample (n=87), over 65% had graduated high school and eleven of these 57 youth reported post-high school education. In fact, CPEC youth appear more educationally competent than the youth in any of the other programs in this study. In terms of work experience, six of ten participants youth had held full-time jobs within the year preceding their intake and almost 50% reported participating in employment training programs.

Perhaps even more than MTTPY youth, the older, comparatively well-educated and experienced CPEC population appeared capable of mastering the technical aspects of energy conservation training.

## Classroom Training Phase: CPEC

The new enrollee was first confronted with an eight week classroom experience that was evenly apportioned between lectures and applied instruction. Training was conducted by two private firms: ECON in Boston and Wescorp in the Border Region. Both firms manufactured energy saving devices in addition to offering training. Besides remedial and job readiness training, the following areas were addressed:

- basic energy theories and conservation opportunities;
- heating, ventilation, and lighting systems;
- building maintenance and construction practices;
- control systems (e.g. thermostats, humidity controls); and,
- alternative energy sources and systems.

While in theory, a solid grounding in the basics is critical, in practice over one third of the enrollees dropped out of the program during this phase and overwhelmingly these youth were from the Border Region, including six New Hamphire youth who were pulled out and reassigned to other CETA programs because of transportation difficulties. Transportation problems aside, participating agencies pointed fingers at each other in explaining the program's inability to hold youth. TDC staff and trainers felt that most participants "were drifting" and not prepared to commit themselves to a career; better screening, these sources claimed, would have gone far to remedy the problem. Prime Sponsors believed the program design, with its heavy classroom component, discouraged out-of-school youth. Further, Border Region trainers, although competent craftsmen, had difficulty relating to the typical enrollee. A full-time counselor was added to the Border Region staff to deal with personal and vocational problems, but retention did not noticeably improve.

Work Experience/Advanced Classroom Training: CPEC

The second phase of the CPEC sequence was a ten week period consisting of equal portions of work experience and classroom time. Similar to the earlier phase, youth received a minimum wage stipend that was paid by the Prime Sponsor. Employers were lined up in advance to provide youth with hands-on work such as energy auditing, insulation, and retrofitting.

The clasroom experience was devoted to skill development in conducting and writing energy audits, understanding utility bills and meter reading, and job estimation. In addition, training was offered in crew supervision and salesmanship. A half-day per week was set aside for job acquisition training which emphasized researching the job market, goal setting, crystallizing job expectations, and job finding.

As with the initial classroom phase, the work experience/advanced training component ran into problems. During the planning phase of the project, CPEC staff elicited verbal promises from employers to provide work experience for trainees. Program correspondence to P/PV in early July 1979 noted that about 150 employers had been identified and "personal contacts have yielded assurances of sufficient jobs, OJT contracts, and Work Experience placements to absorb all enrollees." However, close contact was not maintained with employers and, in Boston, two thirds reneged on their promise to provide work experience for the first wave of youth. As a result, a part-time job developer was hired but as it turned out only twelve of twenty-three students achieved private sector work experience. The remainder were divided into crews to perform auditing and retrofitting jobs for non-profit organizations, under the supervision of ECON staff or a staff member from the non-profit. Performance improved marginally in Cycle II when ten of nineteen candidates were placed in work experience positions with private sector employers.

In the Border Region, four of ten youth placed in Work Experience quit and in the second Cycle this component was scrapped entirely as youth moved directly from basic classroom training into OJT contracts. Wages seemed to be the problem with the work experience component. Trainees worked side by side with employees making $8.00 or more per hour while the trainees received a minimum wage stipend from the Prime Sponsor.

There were also serious substantive dilemmas with regards to curriculum content. Part of the optimistic forecast that predicted jobs-a-plenty in the energy field was predicated upon the adoption of the impending National Energy Policy and Conservation Act which would have required regulated utilities to offer their customers energy audits. The original curriculum was tailored to the job functions inherent in carrying out the legislation. When the bill did not pass, CPEC planners were forced to return to the drawing boards and draft a curriculum that would be relevant to the demand of an unsheltered market. However, the Department of Labor had instructed the program to avoid training in areas including TDC's first choice, HVAC (heating, ventilation, and air conditioning). Further, the DOL specified that TDC skirt areas in which private sector firms were explicitly involved. Because this was a demonstration project, DOL wanted to test new training content areas. TDC believed that the edict to "find something that the private sector isn't doing" translates to "find something that the private sector doesn't need." In the end, according to a top TDC representative, "we were hedging and not sure what category would have jobs so we tried to cover the water with everything from sales to installation."

## OJT Phase: CPEC

CPEC originally projected that 38 youth would engage in on-the-job training contracts; 15 did. Of course the high drop-out rate earlier in the program meant that not as many youth progressed to the OJT stage, but other conditions also plagued OJT placement. First and foremost, the economic downturn had vastly reduced the demand for jobs. Across the nation, the scarcity of dollars for capital improvements deterred investment in the field of energy conservation. An informal survey conducted by CPEC in late 1979 attested to the shrinking job market as employers generally indicated that demand had slackened and there was simply not enough work to warrant taking a youth into training. To compound the situation, several employers said that the CPEC youth simply were not as well qualified as others seeking the same jobs. In one employer's words, CPEC training "was neither specific nor intensive enough to meet our needs."

## Job Placement

The original CPEC model, like MTTPY, was based on a high demand for employment of its trainees and both models had underestimated the need for placement services. CPEC hired several additional job developers to provide stepped-up placement assistance for program graduates and local employers were intensively canvassed. However, by the end of July 1980, nine months after start-up, nearly half of the enrollees had left the program, most as nonpositive terminations.

A TDC official perhaps best summarized the program's experience: "We'd predicted easy entry into jobs and rapid advancement, but it didn't work - the demand is not there."

In summary, both programs suffered because the presumed demand for workers in both the machine trades and energy conservation evaporated. Jobs in general were scarce and youth had to compete with a large number of skilled workers who were unemployed. MTTPY was somewhat successful in coping with this problem and, as will be pointed out in the next chapter, achieved a respectable job placement rate. TDC failed dismally in its effort to place youth in jobs. In addition to market fluctuation, TDC's extended classroom phase may have discouraged youth and contributed to the program's high drop-out rate. Further, the lack of close and ongoing contact with employers hampered TDC's ability to place youth in work experience and OJT settings. MTTPY, on the other hand, with its employer sponsorship component, was able to enlist and sustain employer involvement, a critical element in transitioning youth into jobs.

# CHAPTER XII: TERMINATION ANALYSIS: MTTPY AND CPEC

This analysis corresponds to the approach taken in Part I. Our treatment of termination information begins with an analysis of the termination status of participating youths and uses the same categories defined earlier: job placement, other positive, nonpositive, and other. This section also addresses the degree to which job at termination was related to the specialized training of MTTPY and CPEC and concludes with a brief comparison of termination data from other similar programs. The next section uses frequency tables and multiple regression analysis to explore program completer vs. non-completer outcomes at termination. The final section employs multiple regression analysis to estimate the effects of hours of program participation on employment status at termination.

## Termination Types

Table 23 presents the number and percent of participants by category of termination.

Table 23

Youth Status at Termination: MTTPY and CPEC

| | MTTPY | | CPEC | |
|---|---|---|---|---|
| Job Placement | 45 | 41% | 19 | 22% |
| Other Positive | 18 | 17% | 12 | 14% |
| Nonpositive | 40 | 37% | 49 | 57% |
| Other | 6 | 5% | 6 | 7% |
| Total | 109 | 100% | 86 | 100% |

The contrast between the two programs is apparent. MTTPY clearly outperformed CPEC in terms of overall positive termination rate (58% vs. 36%) and job placement rate (41% vs. 22%). CPEC's high drop-out rate and the shrinking job market are reflected in the program's 57% nonpositive termination rate. CPEC's inability to link youths with jobs is further illustrated by the fact that eight of the 19 jobs were not in fields related to CPEC's training. The relationship of job content to training curriculum is especialy pertinent in specialized, highly technical programs because these programs are often three to four time as expensive to operate as other programs that do not provide skills training. If the subsequent job placements do not relate to the training, these extra expenditures may have been wasted. For MTTPY youth who obtained jobs, 44 of 45 were in the machine trades. The latter statistic, together with MTTPY's 41% placement rate, suggests that in spite of a very tight job market, the program performed well. Perhaps part of this is due to the choice of occupations. The machine trades are certainly essential to an industrialized society whereas data from several studies indicated that private investment in energy products and services wanes during economic downturns. Scarce dollars are more apt to be invested in core goods and services. This suggests that employment and training policy makers would be better off assigning public dollars to established industries experiencing skills shortages as opposed to new markets which are more sensitive to economic fluctuation.

Termination data alone, however, are not sufficient indicators of program effectiveness. Unfortunately, with respect to MTTPY and CPEC, cost constraints precluded follow-up research. Therefore, we are left with gross comparisons which are instructive but not conclusive. On a national level, according to DOL, participants in Youth Community Conservation and Improvement Project programs recorded an 18% rate of jobs at termination during fiscal year 1980, which is slightly less than CPEC and more than 50% less than MTTPY.

Perhaps a better comparison is with selected youth programs that accented skills training. Aggregated data from three selected demonstration programs are exhibited in Table 24. The programs include:

- the Supported Work Demonstration which offered skills training in a variety of occupations and operated in fifteen sites,
- the Ventures in Community Improvement Demonstration (VICI) which used union journeymen to train youth in construction trades and operated in eight sites,
- four HUD demonstration projects which also trained youth in the construction trades.

We stress that these comparisons are limited and are not sufficient to draw definitive conclusions because of important differences among program populations and objectives. For example, the Supported Work program addressed a population with much more serious employability problems as evidenced by the fact that half the youths had some contact with the criminal justice system; HUD, on the other hand, was the only program to enroll in-school youth and these students were counted as positive terminations if they

## Table 24

### Comparison of MTTPY and CPEC Termination Types With Selected Youth Skill Training Programs

| Program | % Job Placements | % Positive Termination | n | Time Period |
|---|---|---|---|---|
| Supported Work (Youth Segment) | 29% | 32% | 1,183 | (7/77 to 6/78) |
| VICI | 33% | 44% | 1,183 | (10/79-9/80) |
| HUD | 19% | 61% | 1,102 | (10/79-9/80) |
| CPEC | 22% | 36% | 86 | (10/79-11/80) |
| MTTPY | 41% | 58% | 109 | 10/79-10/80) |

remained in school. Nonetheless, these gross comparisons point up CPEC's poor job placement rate as well as MTTPY's relatively high performance on these measures. MTTPY clearly achieved the best job placement rate (41%). MTTPY almost equaled HUD's positive termination rate, which is especially noteworthy since 74% of the HUD participants were in-school youth.

This brief look at a few alternative programs suggests that the MTTPY program was successful. However, as noted, the comparisons are imperfect at best.

### Completers vs. Non-completers

Table 25 shows that completers in the programs fared much better than non-completers. Completers in MTTPY were almost twenty times as likely as non-completers to secure a job at termination. For CPEC completers, the ratio was 3.5 to 1. The qualitative evaluation suggested that many noncompleters left each program to go into other job training offerings. Across both programs, about one in five (18%) of those youth who left prematurely transferred to alternative training.

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## Table 25

## MTTPY and CPEC Completers vs. Non-completers: Termination Status

| | MTTPY | | CPEC | | Combined | |
|---|---|---|---|---|---|---|
| | Completers | Non-completers | Completers | Non-com pleters | Completers | Non-com pleters |
| In Jobs | 78% | 4% | 58% | 16% | 74% | 11% |
| In School | -0- | -0- | -0- | 1% | -0- | 1% |
| In Training | -0- | 21% | -0- | 15% | -0- | 18% |
| In Military | -0- | -0- | -0- | -0- | -0- | -0- |
| Total Positive | 78% | 25% | 58% | 32% | 74% | 30% |
| Total n | 54 | 67 | 23 | 74 | 64 | 141 |

Since completion of the program appears to affect outcome at termination we estimated the key determinants of length of program participation. Table 26 presents our results. Remaining in the MTTPY program was most attractive to the more competent participants. Both the high school degree and reading level were significant in explaining hours of participation in the program. No such clear results were evident in the CPEC program. No explanatory variable significantly affected length of time in the CPEC program.

Another interesting finding from these hours of participation equations is that white youth tended not to stay in the MTTPY program. One explanation could be that since whites represented only 12% of the initial participants, they found themselves in the distinct minority and decided not to stay.

### Effects of Hours of Program Participation

Multivariate analysis was also used to determine the effects of hours of program participation on the probability of being employed at termination. Variables we controlled for included age, sex, ethnicity, education, ABLE reading score, and pre-program job within 12 months of intake.

As was true in the subsidized wage programs, for both the MTTPY and CPEC demonstrations, hours of program participation is a significant determinant of job at termination (cf. Appendix Table C-1). It is, in fact, for both models the only variable that is significant in explaining job at termination. In all probability, the fact that participants who remained for the duration of the program received intense job placement help from staff (while premature dropouts did not), accounts for their success.

## Summary

MTTPY clearly out-performed CPEC in terms of both positive termination rate (58% vs. 36%) and job placement rate (41% vs. 22%). MTTPY's job placement rate compared quite favorably with other federally-funded programs aimed at providing skills training to disadvantaged youth. MTTPY also out-performed CPEC in placing youths in jobs directly related to the training they received. In MTTPY, 98% of program completers, but only 36 percent of program enrollees, were placed in training related occupations. In CPEC, 58% of program completers, but only 11% of program enrollees obtained a job at termination which was related to training.

Multivariate analysis determined that a high school degree and high reading score both positively affected hours of participation in MTTPY, indicating that more capable youths tended to remain in the program. No such results were evident for CPEC. Multivariate analysis also indicated that hours of program participation significantly affected probability of employment at termination for both the MTTPY and CPEC programs.

In conclusion, evidence suggests that the MTTPY program had a positive impact on participants. Definitive answers to this question cannot be obtained, however, because of the lack of a comparison group.

# CHAPTER XIII:

## COST-EFFECTIVENESS: MTTPY AND CPEC

Cost-Effectiveness is handled in the same manner in this chapter as it was in Part I. Again, the absence of comparison groups and follow-up information precluded the use of cost-benefit analysis. Therefore, a series of unit costs (e.g., cost per job placement at termination) are used to estimate how MTTPY and CPEC compare to other publicly funded skills training programs for youth. The methodoloy here is identical to the earlier one which used figures drawn from typical operating periods of each program. Specific research costs were netted out. These amounted to 5% of CPEC's total expenditures and 10% of MTTPY's, exclusive of youth stipends. Cost figures derive from each program's accounting records, and hence are subject to some variation depending upon local accounting practices.

### Results and Discussion

The unit costs presented in Table 26 were computed using formulae identical to those in Part I.

Table 26

Unit Costs: MTTPY and CPEC*

| | MTTPY | CPEC |
|---|---|---|
| Cost Per Participant | $ 2,538 ($1,410) | $ 5,475 ($3,154) |
| Cost Per Participant Year | $10,152 ($5,640) | $13,140 ($7,572) |
| Cost Per Positive Termination | $ 5,266 ($2,923) | $21,058 ($12,124) |
| Cost Per Unsubsidized Job | $ 5,417 ($3,007) | $42,118 ($24,249) |

*Numbers in parentheses are unit costs without youth stipends.

Note: See Appendix D for a comparison of these cost figures with those derived without using the typical operating period.

In order to provide a wider context, Table 27 displays unit costs from several other youth program that featured skills training. However, these unit costs are not precisely comparable. They derive from various reports and interviews with other researchers. Also, service populations and objectives vary across the programs. These figures are included only to present a rough fiscal profile of existing programs so that the unit costs of MTTPY and CPEC can be grossly compared and weighed. Figures include stipends paid to participants.

CPEC expended less than most of the other programs on a cost per participant basis. However, the usefulness of cost per participant measures is limited since high turnover rates and brief lengths of stay may provide the illusion of efficiency without providing impact. A better measure of service rendered is "cost per service year" which is fairly similar across the programs, but also falls short of capturing the program impact upon participant employment and employability. Because there are no long-term data, our best measures of cost are cost per positive termination and cost per unsubsidized job. On both of these measures, the MTTPY program outperforms all other programs, in most cases by a wide margin. MTTPY is several times less expensive than the Job Corps and the Ventures in Community Improvement Program, both of which report that participants' long term benefits substantially outweigh program costs. CPEC, on the other hand, was more expensive than any other program except for the Supported Work Demonstration. (The analysis of the long-term fiscal impact of the Supported Work Demonstration also found that costs exceeded benefits.)

Although firm conclusions cannot be drawn because of data limitations, these findings reflect positively on the cost-effectiveness of the MTTPY program relative to other skill training programs for youth.

CPEC's poor performance in recruiting, holding, and placing youth is obvious in the cost figures. While its costs per youth served and per service year are consistently greater than MTTPY's, CPEC's costs soar with the measuring units that focus on termination outcomes. Especially troubling is the cost per unsubsidized job which exceeds $40,000 and which is compounded when we recall that many jobs were not energy-related. Indeed, if unit costs in CPEC were restricted to energy-related job placements, costs would reach almost $60,000 per job placement.

## Table 27

## Unit Cost Comparison

### Unit Costs: Selected Youth Skill Training Programs

| | Cost Per Participant | Cost Per Service Year | Cost Per Positive Termination | Cost Per Unsubsidized Job |
|---|---|---|---|---|
| Ventures in Community Improvement[1] | $ 8,598 | $11,593 | $19,537 | $22,403 |
| Supported Work[2] (Youth Segment) | $ 7,384 | $13,115 | $41,022 | NA |
| Job Corps[3] | $ 6,597 | $13,193 | $13,545 | NA |
| YCCIP[4] | $ 2,985 | $ 7,793 | $ 6,703 | $21,785 |
| CPEC | $ 5,475 | $13,140 | $21,058 | $42,118 |
| MTTPY | $ 2,538 | $10,152 | $ 5,266 | $ 5,417 |

[1] A demonstration program in which union journeymen trained economically disadvantaged youth in the construction trades by working on community improvements. (cf. P/PV, 1982)

[2] A demonstration program which trained economically disadvantaged youth (and other groups with employment problems) in a variety of occupations. (cf. Manpower Demonstration Research Corporation, 1980.)

[3] A program which offers a complete range of education, training, and support services, usually in residential setting, to economically disadvantaged youth. (cf. Employment and Training Report of the President, 1981 and Taggart, 1981.)

[4] Youth Community Conservation and Improvement Projects which provided subsidized training in community-planned work projects and received formula funding, served 16 to 19 year olds, with preference given to low-income youths and high school dropouts. (cf. Employment and Training Report of the President, 1981 and Taggart, 1981.)

# CHAPTER XIV: SUMMARY AND FINDINGS ON OCCUPATIONAL ACCESSING STRATEGIES

In this chapter we briefly summarize principal findings of interest to policy-makers and program operators. Because of the absence of both comparison groups and follow-up data, the remarks are limited to a qualitative evaluation of program operations and to certain cost and termination comparisons with similar programs in the employment field.

## Policy Implications

The learning gleaned from CPEC primarily consists of a litany of caveats. The program clearly failed and several factors appeared to influence its poor performance. As the next section points out, the program design was faulty. At a more global level, however, it is questionable whether policy-makers should commit resources to skills training in emerging, and hence, volatile industries which are extremely sensitive to shifts in the economy.

In the case of MTTPY, the results are more promising. Despite the sudden down-turn in the economy which left numerous machinists out of work, the data for the program are impressive. MTTPY positively terminated 58% of its participants with 41% gaining unsubsidized employment. Further, MTTPY secured 41 of its 45 job placements within its targeted occupational area: machine trades. These rates clearly surpass many other skills training programs for youth.

Compared to national program data, MTTPY's unit cost are favorable. Its cost per unsubsidized job placement was $5,417. The two other comparable programs that reported this statistic, YCCIP and Ventures in Community Improvement, spent approximately $21,000 per job placement. MTTPY's cost per positive termination was $5,266. In contrast the Job Corps was found to cost $13,545 per positive termination with YCCIP at $6,703.

Several implications for policy flow from these findings. First, it appears that designed skills training programs can work for youth, although the absence of longitudinal data precludes definitive answers on post-program outcomes. Second, despite a wrenching down-turn in the Cleveland machine trades, MTTPY's occupational area was somewhat less vulnerable to the state of the economy at least compared to new fields such as energy conservation. Finally, MTTPY's relative success appeared to rest upon several solid programming principles, such as in-depth diagnosis and screening, early and continuous private sector involvement, a well-balanced curriculum featuring cognitive and hands-on learning, and qualified instructors, including retired union machinists who could relate to youth and who had personal networks of job contacts.

## Operational Analysis

Both MTTPY and CPEC featured a multi-step training progression. Although similar in many ways, the design and execution of the MTTPY model was clearly superior. Its initial month-long phase, "Diagnostic and Career Prep," seemed to yield several positive effects. First, it systematically and effectively helped youth sharpen basic skills via its modular competency curriculum. In addition the Prep phase was used to inform youth about the machine trades and offer pre-employment training. Equally essential, this introductory period was used for secondary screening. Through testing and observation, inappropriate candidates were identified and referred to other training offerings and the special needs of certain participants were addressed. The proficiency requirement, wherein youth had to attain specified cut-off scores before advancing to the next stage served as an effective quality control.

The month-long Prep phase was followed by a combined hands-on and classroom training stage where trainees soon began machining their own products. Such a design provided participants a steady stream of positive reinforcements as they mastered learning modules and produced tangible outputs. CPEC, on the other hand, began with a two-month long classroom training phase which was highly cognitive and appears to have discouraged many youth.

Both programs embodied work experience components with private sector employers. MTTPY involved employers directly by introducing them to their prospective trainees early in the process and keeping employers updated on the trainee's progress. CPEC, on the other hand, after enlisting employers failed to keep them involved with the program. Many of the employer pledges were withdrawn several months later when CPEC sought to place the trainees.

Finally, with the exception of the Prime Sponsor handling recruiting and certification, MTTPY was run by a single agency with experienced staff. In contrast, CPEC's division of labor with various agencies taking responsibility for different program phases proved unwieldy and less than efficient.

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# APPENDICES

## Table A-1

### Probit Analysis of Employment Status and Positive Activity Status at Follow-up: OR t-ratios in parentheses)

| Variable | Employment Status | Positive Activity |
|---|---|---|
| **Age at Intake** | | |
| 1 = 18 or over | -.02 | .34 |
| | (-.06) | (.90) |
| **Sex** | | |
| 1 = male | -.40 | .15 |
| | (-.90) | (.34) |
| **Ethnicity** | | |
| 1 = Hispanic, 0 otherwise | 1.02 | .72 |
| | (2.21)* | (1.62) |
| 1 = black, 0 otherwise (white is omitted category) | .33 | -.10 |
| | (.46) | (-.16) |
| **Education** | | |
| 1 = high school graduate | -.54 | .14 |
| | (-1.16) | (.29) |
| **ABLE Reading Score** | .05 | -.04 |
| | (.45) | (-.42) |
| **Pre-program job within 12 months of intake** | | |
| 1 = yes | .51 | .36 |
| | (1.35) | (.96) |
| **Hours of program participation** | .0007 | .0004 |
| | (1.13) | (.58) |
| **Constant** | -1.11 | -.54 |
| | (-1.31) | (-.64) |
| Chi-Square | 13.49 | 8.91 |
| Degrees of Freedom | 8 | 8 |
| Proportion y=1 | .52 | .61 |
| Log Likelihood | -35.46 | -36.43 |
| Number of Observations | 61 | 61 |

*indicates statistical significance at .05 level

### Table A-2

## PROBIT ANALYSIS OF EMPLOYMENT STATUS AND POSITIVE ACTIVITY STATUS AT FOLLOW-UP: PO I

(t - ratios in parentheses)

| Variable | Employment Status | Positive Activity |
|---|---|---|
| Age at Intake | | |
| 1 = 18 or over | -.35<br>(-.74) | -.03<br>(-.05) |
| Sex | | |
| 1 = male | .47<br>(1.33) | .47<br>(1.30) |
| Ethnicity | | |
| 1 = white | -.07<br>(-.10) | -.55<br>(-.75) |
| Parents' Education | .02<br>(.07) | .06<br>(.27) |
| Education | | |
| 1 = high school graduate | .13<br>(.36) | -.10<br>(-.28) |
| ABLE Reading Score | .22<br>(1.48) | .23<br>(1.59) |
| Pre-program job within 12 months of intake | | |
| 1 = yes | .30<br>(.89) | .07<br>(.20) |
| Hours of program participation | .0002<br>(.52) | .0005<br>(1.10) |
| Constant | -2.00<br>(-1.30) | -1.82<br>(-1.32) |
| Chi-Square | 6.87 | 8.34 |
| Degrees of Freedom | 8 | 8 |
| Proportion y=1 | .49 | .57 |
| Log Likelihood | -44.38 | -43.07 |
| Number of Observations | 69 | 69 |

# APPENDIX B
# CONTROLLING FOR SELECTION BIAS

As indicated in Table 10 of the Impact Analysis chapter, our overall comparison group for the Project Opportunity Phase I program has slightly higher values on baseline characteristics such as proportion with a high school degree, reading ability score, proportion with pre-program job, and wages on pre-program job.

These differences between our comparison group and our participant group cause no problem as long as all of the differences between the groups are observable. The purpose of our multiple regression is to control for differences in background characteristics between sample groups. However, if as appears to be the case, program staff were selecting certain types of youth for program participation, there were probably unobservable differences between the sample groups working in the same direction as the observable differences. Traditional regression analysis cannot control for such unobservable differences.

In an attempt to control for these unobservable differences between the participant and comparison groups, we make use of a recently developed econometric procedure which controls for selection bias in the estimation of program effects. This procedure involves a two stage methodology which attempts to capture unobservable characteristics which affected selection into the program. In the first stage of this analysis, selection into the program is modeled based on various observable differences between sample individuals. From this model, conditional probabilities of participation based on observable characteristics can be estimated for each individual. Differences between the predicted and actual participation status of each individual can then be attributed to unobservable individual characteristics. In the second stage of this analysis, program effects on outcome measures are estimated, controlling for observable differences as well as an extra variable representing the unobservable characteristics of the individual which appear to affect program participation, as estimated in the first stage. To make these models work, the selection equation must be distinguished from the outcome equations. To do this, an additional variable must be added to the selection equation which is related to selection into the program but not to any of the outcome measures.

Our attempt to model sample selection in the Project Opportunity Phase I program is complicated by the fact that the comparison group included youth who were selected out of the program either because they were too job-ready or not job-ready enough. To make a more straightforward selection model, we tried deleting from the sample the youth who were either in Supported Work at the time of the baseline survey or who eventually entered Supported Work. With these youth left out, we can at least hypothesize the direction that our selection results should take, and thus determine if our selection model is working as expected.

Table B-1 presents the results of our program selection model using both our overall comparison sample and the comparison sample with the supported work youth deleted. The variable that we use to identify the selection equation include the town of residence of the individuals in the sample and the quarter of intake into the sample. Participant and comparison group members in our sample came from three geographically close towns in Wisconsin: Fond du Lac, Oshkosh, and Neenah. Because the three towns are all within twenty miles of each other, it can reasonably be assumed that they are all part of the same labor market, and that the home town of each youth should have no effect on his labor market success. Similarly, it can reasonably be assumed that the quarter in which youth entered the sample should have no relation to subsequent labor market outcomes.

As is evident in Table B-1, our selection model using the segmented comparison group has more explanatory power than our model using the entire comparison sample. In large part, this is to be expected given that our segmented comparison group is so much more obviously different from our participant group. In the model using the segmented comparison group, our city variable does fairly well in identifying the selection equation. Individuals from Neenah have a significantly different chance of program participation than individuals from Fond du Lac. In the selection model for both samples, the quarterly variables are statistically significant in explaining program participation.

Tables B-2 and B-3 present our outcome equations for earnings using first the overall comparison group and then the segmented comparison group. The tables present results both with and without a correction for selection bias. The earnings results presented in Table B-2 -- using the full comparison group with a correction for selection bias -- are the ones reported in the text of our net impact chapter.

In our earnings results in Table B-3, our correction for selection bias does affect our results. Without the correction, program participation has a slightly negative but insignificant effect on subsequent earnings. With the correction for selection bias included in the model, program participation has a much stronger negative effect on subsequent earnings and the effect approaches statistical significance.

## Table B-1

## Probit Model of Selection into Project Opportunity I Program

(t-ratio's in parentheses)

| Variable | With Overall Comparison Group | With Segmented Comparison Group |
|---|---|---|
| Age at intake | | |
| 1 = 18 or over | -.18 | -.29 |
| | (-.47) | (-.70) |
| Sex | | |
| 1 = male | -.13 | -.11 |
| | (-.51) | (-.44) |
| Ethnicity | | |
| 1 = white | -.05 | -.17 |
| | (-.07) | (-.23) |
| Education | | |
| 1 = high school graduate | .04 | .01 |
| | (.15) | (.04) |
| ABLE Reading Score | .01 | -2.0 |
| | (.01) | (-1.44) |
| Parent's Education Level | -.15 | -.23 |
| | (-.84) | (-1.19) |
| Pre-program job within 12 months of intake | .04 | -.01 |
| | (.17) | (-.05) |
| Neenah | -.36 | -.53 |
| | (-1.37) | (-1.80) |
| Oshkosh | .09 | .11 |
| | (.26) | (.31) |
| Entered in Quarter 1 | -1.57 | -1.73 |
| | (-3.77)* | (-3.70)* |
| Entered in Quarter 2 | -1.64 | -1.80 |
| | (-4.18)* | (-3.92)* |
| Entered in Quarter 3 | -1.45 | -1.67 |
| | (-3.76)* | (-3.81)* |
| Constant | 1.98 | 4.53 |
| | (1.69) | (2.89)* |
| Chi-Square | 35.43 | 41.52 |
| Log of Likelihood | -83.26 | -74.89 |
| Proportion Y=1 | .47 | .50 |
| Degrees of Freedom | 12 | 12 |
| Number of Observations | 146 | 138 |

*Indicates statistical significance at the .05 level.

# Table B-2

## Tobit Analysis of Earnings, Full Comparison Group, With and Without Correction for Selection Bias

(t-ratio's in parentheses)

| Variables | With Correction | Without Correction |
|---|---|---|
| **Age at intake** 1 = 18 or over | 41.62<br>(1.91) | 42.27<br>(1.94) |
| **Sex** 1 = male | 5.82<br>(.39) | 9.44<br>(.64) |
| **Ethnicity** 1 = White | -59.50<br>(-1.87) | -54.51<br>(-1.72) |
| **Education** 1 = High School Degree graduate | 3.23<br>(.20) | 3.86<br>(.24) |
| ABLE Reading Score | 1.68<br>(.26) | 2.73<br>(.43) |
| Pre-program job within 12 months of intake | 45.24<br>(3.12)* | 48.26<br>(3.36)* |
| Parent's Education | -.48<br>(-.04) | 2.24<br>(.20) |
| Interview in 2nd Quarter | -10.87<br>(-.38) | -12.79<br>(-.44) |
| Interview in 3rd Quarter | -8.66<br>(-.30) | -8.18<br>(-.28) |
| Interview in 4th Quarter | 35.86<br>(1.27) | 32.57<br>(1.16) |
| Program Participation | -45.73<br>(-1.39) | -10.35<br>(-.73) |
| Lambda | 26.03<br>(1.21) | |
| Constant | 63.65<br>(.77) | 11.40<br>(.16) |
| Sigma | 69.94<br>(11.42) | 69.58<br>(11.26) |
| Mean Value of Y | 83.45 | 83.45 |
| Number of Observations | 146 | 146 |
| Log Likelihood | -753.16 | -753.74 |

*Indicates statistical significance at the .05 level.

## Table B-3

## Tobit Analysis of Earnings, Segmented Comparison Group With and Without Correction for Selection Bias

(t-ratio's in parentheses)

| Variables | With Correction | Without Correction |
|---|---|---|
| Age at intake | | |
| 1 = 18 or over | 28.09 | 30.67 |
| | (1.21) | (1.32) |
| Sex | | |
| 1 = male | 1.79 | 7.16 |
| | (.11) | (.48) |
| Ethnicity | | |
| 1 = White | -90.84 | 78.76 |
| | (-2.58)* | (2.36)* |
| Education | | |
| 1 = High School Degree graduate | .35 | 2.63 |
| | (.02) | (.16) |
| ABLE Reading Score | 3.40 | 6.26 |
| | (.47) | (.89) |
| Pre-program job within 12 months of intake | 48.81 | 52.37 |
| | (3.29)* | (3.55)* |
| Parent's Education | .63 | 5.00 |
| | (.05) | (.45) |
| Interview in 2nd Quarter | -8.19 | -12.93 |
| | (-.28) | (-.45) |
| Interview in 3rd Quarter | -10.54 | -11.00 |
| | (-.36) | (-.38) |
| Interview in 4th Quarter | 39.25 | 28.26 |
| | (1.38) | (1.20) |
| Program Participation | -59.36 | -10.80 |
| | (-1.79) | (-.73) |
| Lambda | 36.87 | |
| | (1.66) | |
| Constant | 94.84 | 19.33 |
| | (.99) | (.23) |
| Sigma | 70.72 | 70.34 |
| | (11.33) | (11.09) |
| Mean Value of Dependent Variable | 84.48 | 84.48 |
| Number of Observations | 136 | 136 |
| Log Likelihood | -711.21 | -712.33 |

*Indicates statistical significance at the .05 level.

It is somewhat troublesome that in both our model using the overall comparison and our model using the segmented comparison group, the correction for selection bias makes the program effect more negative. We had expected observable and unobservable characteristics to work in the same direction in explaining program participation. That this did not occur, sheds some doubt on whether our selection model successfully captured all unobservable differences between our participant and comparison samples.

# APPENDIX C

## Table C-1

## Probit Analysis Explaining Job at Termination: CPEC and MTTPY

(t-ratios in parentheses)

| Variable | CPEC | MTTPY |
|---|---|---|
| Age At Intake | | |
| 1 = 18 or over | -3.69<br>(-.06) | 3.32<br>(.05) |
| Sex | | |
| 1 = male | -.49<br>(-1.02) | -.13<br>(-.41) |
| Ethnicity | | |
| 1 = black, 0 otherwise | .001<br>(.001) | -.03<br>(-.07) |
| 1 = white, 0 otherwise | -.35<br>(-.48) | .61<br>(1.00) |
| (Hispanic Omitted Category) | | |
| Education | | |
| 1 = High School Graduate | .09<br>(.18) | -.12<br>(-.47) |
| ABLE Reading Score | .02<br>(.03) | .04<br>(.48) |
| Hours of Program Participation | .001<br>(2.75)* | .002<br>(2.33)* |
| Pre-Program Job Within 12 Months of Intake | -.15<br>(-.34) | .43<br>(1.54) |
| Constant | -4.57<br>(-.07) | -4.88<br>(-.08) |
| Chi-Square | 13.13 | 13.34 |
| Degrees of Freedom | 8 | 8 |
| Log of Liklihood | -28.52 | -71.18 |
| Proportion Y=1 | .29 | .36 |
| Number of Observations | 58 | 119 |

*Indicates statistical significance at the .05 level.

## APPENDIX D

### Typical Operating Period Versus Straight Computation of Unit Costs

The typical operating period technique used in this report bases all calculations upon a "representative" period during the mid-life of a program. Costs connected with program start-up are eliminated and a better estimate of normal operating costs is thereby achieved. Also, the demonstration programs studied in this report experienced phase-out periods during their final months. While a full staff was often retained during phase-out, no new youth were enrolled. Staff effort during phase-out was more fully directed towards the support and placement of youth, and programs tended to achieve higher positive termination rates during this period. Because phase-out costs are also a typical, the TOP technique excluded them.

In this appendix we demonstrate and explain how unit costs can differ widely depending on their method of calculation. In particular we contrast costs derived from the Typical Operating Period Technique (TOP) with those generated via a straight computation method (SC). Further, we assess how the inclusion of start-up and phase-out costs differ from a program's normal running costs.

Table D-1 lists two sets of cost figures. One set derived from the TOP method and the other from SC. In the latter approach, unit costs represent the full life of the demonstration and were calculated by simply dividing total costs (less research expenditures) by the sum of each key indicator. For example, the SC cost per unsubsidized job is the result of total costs divided by total number of participants achieving a job placement at termination.

Scrutiny of Table D-1 reveals numerous instances where substantial variance exists between the two methods of cost analysis. For example, on the cost per participant measure, each TOP calculation is lower than its SC counterpart. The differences range in magnitude from $242 to $1,421 dollars. Using PO II as the "worst case" example (i.e. the highest variance), we see that the PO II's cost per participant (stipends included) using the TOP method was $2,276 while the Straight Calculation was $3,697, a difference of $1,421. The running data show the cause of discrepancy. (See Table D-2.) The Typical Operating Period (TOP) ran from July through November 1981. Selecting this TOP was dictated by the fact that both agency caseload (number of youth in process) and operating costs were stable from July through November. Admittedly, this period does not perfectly

## Table D-1

## Unit Costs: Typical Operating Period (TOP) vs. Straight Computation (SC)*

| Unit Costs | | Programs | | | | |
|---|---|---|---|---|---|---|
| | | PO I | PO II | OR/NJ | MTTPY | CPEC |
| Cost per Participant | TOP | $2961 | 2276 | 2804 | 2538 | 5475 |
| | | (975)** | (796) | (1005) | (1410) | (3154) |
| | SC | $3205 | 3697 | 3282 | 3311 | 6018 |
| | | (1323) | (1471) | (1727) | (2244) | (4250) |
| Cost per Positive Termination | TOP | $7481 | 4571 | 5792 | 5266 | 21058 |
| | | (2464) | (1602) | (2080) | (2923) | (12124) |
| | SC | $6463 | 5934 | 5707 | 7419 | 21061 |
| | | (2667) | (2362) | (3004) | (5029) | (14876) |
| Cost per Unsubsidized Job | TOP | $10331 | 5366 | 7722 | 5417 | 42118 |
| | | (3403) | (1880) | (2774) | (3007) | (24249) |
| | SC | $10018 | 7047 | 7722 | 8709 | 32211 |
| | | (4033) | (2805) | (4064) | (5904) | (22751) |

* Research costs have been netted out for both computational methods.

** Numbers in parantheses do not include youth stipends.

represent a typical period of operations. Intuitively, we are aware that certain seasonal effects may influence the data from this period because it excludes much of the winter and all of the spring. Also the $2649 paid as stipends to youth in November is clearly atypical. Nevertheless, we argue that the TOP, although imperfect, is more representative of normal operating costs than the SC method with its inclusion of wind-up and wind-down periods.

In the PO II example, having selected the TOP, the start-up period by definition ran from February through June 1981 (See Table D-2.) The wind-down period was December, 1981 through March, 1982. Examination of these periods permits us to analyze why the two methods of calculation yield different results. During start-up and phase-out the ratio of dollars spent to "number of youth in process" far exceeds the same ratio during the TOP. Table D-3 illustrates this and lists a number of additional statistics broken out by project time period.

Analyzing costs by project period brings to light the reason for variance between the two methods of calculation. For example, the average monthly costs of program operation, excluding youth stipends, is fairly similar for the start-up period ($7114) versus TOP ($8652) but the monthly number of youth in process during TOP averages more than twice that of the start-up period. Cost per participant calculations differ accordingly with costs running much higher during start-up. As is evident from line 9 in Table D-3 the ratio of operating costs to youth stipend costs is much lower during the TOP which indicates more service per dollar. As one would expect, costs during the phase-out period were much less than other periods. However, costs during phase-out on a per participant basis were the highest of all periods because the number of participants served decreased even more sharply than costs.

Similar analyses explain discrepancies between cost per positive termination and cost per unsubsidized job placement. For example, Table D-2 notes seven positive terminations during phase-out while total expenditures (less 11% research costs) totalled $10,949. Straight division yields a cost per unsubsidized job figure of $1,564 which is over $300 less than the identical statistic for the TOP ($1,880). Decreased expenses coupled with staff giving full emphasis to placing current participants probably explain this discrepancy.

In summary, care must be taken in calculating even the most basic of cost indicators. In this study, a typical operating period technique (TOP) was used because it appeared to best represent normal program operation.

# Table D-2

## Spreadsheet for Cost Analysis

Program

Project Opportunity: Phase II

| Period | Month | | Expenses No Stipends | Positive Terminations | Unsubsidized Job Placements | Youth In Process |
|---|---|---|---|---|---|---|
| Start-up | 2/81 | 3291 | $ 5,501.74 | 0 | 0 | 5 |
| | 3/81 | 5114 | $ 7,491 | 1 | 0 | 10 |
| | 4/81 | 6072 | $ 8,957 | 0 | 0 | 19 |
| | 5/81 | 10,774 | $ 7,200 | 1 | 1 | 28 |
| | 6/81 | 16,520 | $10,816 | 2 | 1 | 36 |
| Typical Operating Period (TOP) | 7/81 | 20,251 | $10,983 | 1 | 1 | 45 |
| | 8/81 | 21,822 | $ 9,585 | 3 | 2 | 51 |
| | 9/81 | 19,819 | $ 9,158 | 8 | 5 | 48 |
| | 10/81 | 15,627 | $ 9,425 | 5 | 6 | 43 |
| | 11/81 | 2649 | $ 9,457 | 10 | 9 | 30 |
| Phase Down | 12/81 | 6478 | $ 3,522 | 4 | 4 | 12 |
| | 1/82 | 5429 | $ 2,533 | 1 | 1 | 6 |
| | 2/82 | 1455 | $ 2,744 | 2 | 2 | 5 |
| | 3/82 | 430 | $ 3,503 | 0 | 0 | 4 |
| TOTALS | | 13,9022 | $100,875* | 38 | 32 | - |

* $100,875 less 11% research cost = $89,779

## Table D-3

## PO I Project Period Cost Data

| | | Start-Up<br>2/81 thru 6/81 | TOP<br>7/81 thru 11/81 | Phase-Out<br>12/81 thru 3/82 |
|---|---|---|---|---|
| (a) | Total Active Participant Slots | 98 | 217 | 27 |
| (b) | Length of Period in Months | 5 | 5 | 4 |
| (c) | X̄ Participants per Month ( a ÷ b) | 19.6 | 43.4 | 6.8 |
| (d) | Total Operating Expenditures (11% research cost netted out) | $35,568 | $43,261 | $10,948 |
| (e) | Total Youth Stipend Expenditures | $41,771 | $80,168 | $13,792 |
| (f) | Total Operating Stipend ( d+e) Expenditures | $77,339 | $123,429 | $24,740 |
| (g) | Ratio of Operating to Stipend Expenditures ( d ÷ e) | .85 | .53 | .79 |
| (h) | X̄ Monthly Cost: Operating Expenses ( d ÷ b ) | $ 7,114 | $8,652 | $2,737 |
| (i) | X̄ Monthly Cost: Youth Stipends ( e ÷ b ) | $8,354 | $16,034 | $3,448 |
| (j) | X̄ Monthly Cost: Operations + Stipends ( f ÷ b) | $15,468 | $24,688 | $6,185 |
| (k) | X̄ Monthly Cost Per Participant | | | |
| | ( h ÷ c) without stipends | $363 | $199 | $403 |
| | ( j ÷ c) with stipends | $789 | $569 | $910 |
| (l) | Cost per Participant | | | |
| | (k x 4 month average stay) without stipend | $1452 | $796 | $1612 |
| | with stipends | $3156 | $2276 | $3640 |

Statistics yielded from the TOP technique do vary, often substantially, with those generated by other techniques, in particular the Straight Calculation method. Much caution, therefore, must be used in interpreting and contrasting cost figures, especially those which compare different programs since different calculation techniques can yield widely variable results.